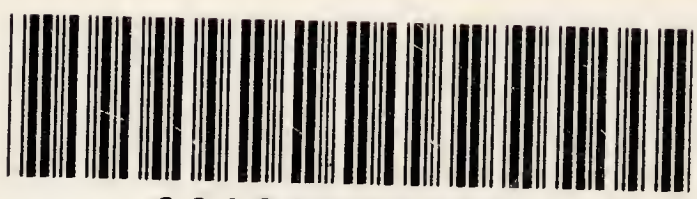
TECHNIQUE OF CONTRACEPTION

JAMES F. COOPER, M.D.



TECHNIQUE OF CONTRACEPTION

THE PRINCIPLES AND PRACTICE OF ANTI-CONCEPTIONAL METHODS

BY

JAMES F. COOPER, M.D.

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TO

MARGARET SANGER

Founder and President of the American Birth Control League, Whose Untiring Efforts Gained for the Physicians of New York State the Right to Prescribe Contraceptive Measures for the Cure and Prevention of Disease, and Established the First Extensive Clinical Research in Contraceptive methods;

AND

To the Thousands of Physicians and other Scientists Whose Interest, Encouragement and Cooperation have Made possible the Present Development of the Art of Contraception.

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ILLUSTRATIONS

INTRODUCTION

By John C. Vaughan, M.D.,

Firmerly Director of the Clinical Research Department of the American Birth Control League, Inc.

THE interest of American physicians in the practice of contraception is steadily growing. This fact is reflected in the increasing number of letters received from doctors everywhere by the Clinical Research Department of the American Birth Control League requesting technical information, and in the large attendance of physicians at contraceptive sessions held in connection with birth control conventions.

Great movements have been launched to abate widespread causes of death, such as cancer and tuberculosis. The world, shocked by war's fatalities, patronizes anti-war campaigns. Safety-first campaigns are in progress to lessen the toll of life taken in railway and automobile accidents.

The enslavement of maternity and the fast-swelling stream of the unfit present an equally compelling motive for remedial work. But, unfortunately, maternal and fœtal mortality is associated in the mind of the public, and also in the minds of a good many physicians, with the sex taboo,—a barrier which effectually restrains in this vitally important field those humanitarian impulses which are operating so spontaneously and gallantly in the fight against plagues and some other agencies of death. In fact, little

popular support may at present be expected for a movement undertaken to save wives from the perils of pregnancies which jeopardize health or life itself, and to prevent the birth of children whose defects rob them of any fair chance of growing up to lead happy, useful lives. It is obvious, therefore, that at present the problem of alleviating this condition is peculiarly a problem of enlightened physicians.

The main purpose of the practice of medicine is the prevention of sickness rather than the curing of disease. Not until maternity is *controlled* will its great mortality and morbidity be materially diminished. There is probably no field more promising for the promotion of health and human happiness than that concerned with the control of conception.

The physician searches American medical libraries in vain for adequate guidance on this vital subject. Except for a few pamphlets difficult to obtain, and for occasional articles in medical journals, this country affords no literature on contraception; and an almost similar dearth exists in other lands.

It is apparent, therefore, that the publication of a book on the technique of contraception, based on modern clinical experimentation as is this volume by Dr. Cooper, is both important and timely. This book, issued exclusively for the medical profession, not only should serve a distinct need, but it may perhaps stimulate further fruitful investigation.

JOHN C. VAUGHAN, M.D.

PREFACE

THE contents of this book and its technical presentation indicate clearly that it is written exclusively for the medical profession. Moreover, the author has specifically arranged with the publisher so that copies of the book will be available only to physicians,[1] thus giving emphasis to his belief that all practical aspects of contraception should be under the direction of members of the medical profession.

Fortunately, the desirability of controlling conception is being increasingly appreciated by physicians. Many of them, indeed, have realized their responsibility in this matter, not only on account of the widespread use of contraceptive measures of one kind or other among intelligent married people in the United States, but also because of the obvious advantages of placing at the disposal of patients who seriously need contraceptive advice those methods which are safe, simple and satisfactory, thus protecting needy women from quacks, charlatans and commercial exploiters who may provide measures that are both useless and dangerous.

In medical literature, too, the desirability of preventing pregnancy is often emphasized,—Cardiac, Pulmonary, Renal, Diabetic, Toxic and other reasons for contraception being frequently discussed. Many physicians have experimented with various measures for the relief of their patients,

[1] For exceptions, see the last paragraph of this Preface, page XVI.

and clinics have been established in many parts of the world, some of which have treated thousands of cases and have published interesting and helpful reports of their work. Hitherto, however, no individual or clinic has published an account of any considerable number of contraceptive cases which have been based on thorough and definite clinical research methods, and then recorded by a physician after examination and the following-up of cases for a sufficient length of time to find out exactly what the end-results were.

The opinions, conclusions and recommendations in this book are based chiefly on observation and study, from January, 1923, to 1928, of more than 8,000 clinical cases. The outstanding contraceptive method, which is set forth in Chapter VIII as the safest, simplest and most satisfactory in normal cases, is based directly on intensive study of more than 1,600 cases included in the 1925 Report of the Clinical Research Department of the American Birth Control League. All these cases were under the observation of the author, and were followed up and end-results checked by family visitation where necessary at the end of one year. So far as is known, this is the first and only report of its kind. No claim is made that this is a sufficient number or that the time elapsed is sufficient to judge all the end-results. The claim is made, however, that after comparative tests with various methods and from evidence contained in the histories given by thousands of women concerning their experience with various methods, the principles which govern successful contraception have been proved. Furthermore, there is interesting corroboration and support through the results and conclusions reached in other clinical studies of many thousands of cases, such as in the Reports in Chapter XIV of this book kindly furnished by

the Illinois Birth Control League, and the Los Angeles Mothers Clinic Association.

It has been felt by many physicians who have desired contraceptive measures for their patients that there has been nothing reliable for them to use or to recommend, and they have been discouraged because of the unsatisfactory results in some of their cases. To such it may be somewhat of a revelation to find out in this book just how effective the best measures really are and what can be done for cases in general practice.

The author has drawn upon his twelve years of investigation and observation in this field, and especially upon his experience as Medical Director of the Clinical Research Department [1] of the American Birth Control League, where he has had unusual opportunity for the study of problems in contraception. The attempt is made throughout to avoid theorizing and speculation, and to base conclusions as far as possible only on experimental and proved results.

No attempt, however, is made in this book at finality. From what is herein presented, it will be evident that scientific research in this most important field has made encouraging progress. For the first time, we have obtained statistical data on an adequately large number of cases which have been followed up for a sufficient period to permit an intelligent estimate of relative values of contraceptive methods in common use at the present time. Further experiment may lead to a development and improvement of these measures, or to new methods. For example, irradiation may be utilized, and serums or vaccines may play some part in immunizing women against pregnancy. Studies in

[1] Now Birth Control Clinical Research Bureau (see page 162).

Endocrinology may also reveal information which can be utilized in contraception. Efforts will be continued by the Clinical Research Department for the perfection of methods,—especially to meet one of the greatest needs of the present, the simplification of methods. With the increasing number of clinics now being established in both Europe and the United States, considerable progress may be expected during the next few years.

The chief aim of the author in writing this book is to set forth all the available scientific data of importance on this subject in such manner that the physician will have available the necessary information to enable him to prescribe for those of his patients who in his judgment need contraceptive advice. He also emphasizes the extent of popular and scientific interest which has already been manifested in the subject, and points out the responsibility of the medical profession in this new field.

The book is made as practical as possible, not only by presenting the relative merits of the various methods, but also by discussing the fundamental principles which underlie the successful application of all contraceptive measures. A certain amount of clinic routine is also presented to enable the practitioner to understand the information which it is desirable to include in case histories, and to aid him in evaluating results obtained.

Since most of the statistical contraceptive material in this volume is based on the work of the Clinical Research Department, reference is made to it many times. When organized, it was the only source of experimental information in America. Since its organization other clinics have come into being, many of which have adopted its methods of procedure, its history sheets, its methods of contraception

and follow-up work. This Clinic has published several pamphlets on its methods and results and has distributed them to physicians; and hundreds of physicians have been welcomed to the Clinic and many instructed there in contraceptive technique. Its experimental work has always been under the direction of physicians, who have sought to cooperate in every way with the medical profession and to conduct its Clinic within the provisions of the New York State Law.

Much of the material presented in this book has formed the basis of lectures delivered by the author before 200 County Medical Societies in every State in the Union, besides State and Sectional Meetings, Academies of Medicine, Medical Schools, Hospital Staffs and other groups. With the increasing interest on the part of the public at large and of the medical profession, the author expresses the hope that this book on the subject of contraception, which is solidly based on the proved results of clinical experimentation, will at least meet a real need of the present, and may encourage others to undertake serious investigation in this most promising field.

Some liberty has been taken in a few instances by using terms other than those in common use. For instance, "gynecological position" is used to indicate the position of the patient for the routine gynecological examination and treatment; namely, on the back with the knees drawn up and spread apart. The French term "cul de sac" is used to designate the uterine fornices. The adjectives anterior or posterior are used as the case requires. These changes are in the interest of clearness. When alternatives of technical terms are presented, the simplest is chosen. Prescriptions, formulæ, and names of drugs are in English instead of in

Latin for the same reason. The Table of Contents is presented in great detail, which makes an Index unnecessary; and running titles on right-hand pages will aid the reader in finding most topics.

Acknowledgment is made of help rendered to the author by Dr. Stuart Mudd of Phipps Institute of Philadelphia, Dr. S. Adolphus Knopf, formerly of the Post-Graduate Clinic of New York, Dr. Robert L. Dickinson of the Committee on Maternal Health of New York, and Dr. Francis Carter Wood of St. Luke's Hospital of New York, especially for assistance in reading proof and for helpful suggestions which have been incorporated. To the Publishers, appreciation is expressed for valuable editorial cooperation in the revision and rearrangement of the text.

JAMES F. COOPER, M.D.

June, 1929

TECHNIQUE OF CONTRACEPTION

CHAPTER I

True Significance of Birth Control

IF control be defined as the application of intelligent regulation to any process, birth control would mean the intelligent regulation of the birth rate.

During the last one hundred years there has been an unprecedented increase in world population, until it is becoming obvious that this increase cannot go on indefinitely and that something must be done to regulate the birth rate. The tremendous and ever increasing cost to society for the care of mental defectives presents another problem which is causing serious minded people to ask if something cannot be done to stem this rising tide of the unfit. These are the larger social aspects of control, which are receiving more and more attention in all civilized countries. In addition, there is the growing consciousness that control is frequently needed in individual cases for reasons of health, or because economic and domestic conditions often are such that control of offspring is extremely desirable and sometimes imperative.

Unfortunately, there now exists a wide-spread misapprehension which leads too many people to think that birth control means limitation only. *Limitation is only one phase, the negative phase of control.* As a matter of fact,

where population is scanty and resources are bountiful, it may be desirable to encourage increase in the birth rate until the optimum population is reached, and only then to exercise limitation. With regard to quality of population, it would seem desirable to encourage those who are better endowed biologically to maintain a higher birth rate than those who are less fortunate. Those who have a vicious inheritance or are socially incompetent, such as dependents, delinquents, incorrigible criminals and the like, should be discouraged from breeding indiscriminately.

Moreover, in the case of the family, if it is well-endowed in mind, body and estate, it could make splendid contributions to society, and this opportunity and responsibility should be emphasized. With motherhood properly idealized, custom and public sentiment may in due time be influenced so that maternity will be considered highly desirable by families of the more fortunate type.

Even in instances where the limitation aspects of birth control are obviously indicated, the very fact of limitation may frequently create conditions which will warrant a return to normal child-bearing. For example, there are a great many women who are weak, ill, or debilitated from too frequently recurring pregnancies; others who are trying to maintain families on an income already inadequate; and still others who are struggling with domestic tragedies which would be aggravated by the arrival of more children. Neither mother, children nor society could possibly benefit by unrestricted child-bearing under such circumstances, and temporary methods of limitation are advisable for the very purpose of making favorable conditions possible later on so that the child-bearing process may properly be resumed.

Limitation, therefore, is only one aspect of birth con-

trol. How absurd for anyone to say, "I advocate large families" or "I advocate small families," without reference to conditions in individual cases! These arbitrary statements can never meet with the approval of the majority of thinking people. While it might be desirable for some families to be large, it would certainly be a calamity for others.

The subject of intelligent regulation of the birth rate is engaging the minds of forward-looking people in all walks of life. Many of these have made contributions to the literature of the subject. So important are some of these contributions that representative excerpts are printed in this chapter from which one can form an opinion of the trend of the times and of the present world aspects of birth control. For convenience, these extracts are arranged under three separate headings, "Opinions of Physicians," "Opinions of Public Men," and "Opinions of Clergymen."

OPINIONS OF PHYSICIANS

HAVELOCK ELLIS, M.D.

Pioneer and One of the Foremost Authorities in Sex Psychology among English-speaking Peoples

The knowledge of birth control gives us the mastery of all that the ancients gained by infanticide, while yet enabling us to cherish that ideal of the sacredness of human life which we profess to honor so highly. . . . We do not need, and indeed it would be undesirable, to emulate in human breeding the achievements of a Luther Burbank. We have no right to attempt to impose upon any human creature an exaggerated and one-sided development. But

it is not only our right, it is our duty, or rather one may say the natural impulse of every rational and humane person, to seek that only such children may be born as will be able to go through life with a reasonable prospect that they will not be heavily handicapped by inborn defect or special liability to some incapacitating disease. . . . It is often said, I have said it myself, that birth control when practised merely as a limitation of the family scarcely suffices to furnish the eugenic progress of the race. . . . This is true if other conditions remain equal. It is evident, however, that other conditions will not remain equal, for no evidence has yet been brought forward to show that birth control, even when practised without regard to eugenic considerations—doubtless the usual rule up to the present—has produced any degeneration of the race. On the contrary, the evidence seems to show that it has improved the race. The example of Holland is often brought forward as evidence in favor of such a tendency of birth control, since in that country the wide-spread practice of birth control has been accompanied by an increase in the health and stature of the people.

WILLIAM ALLEN PUSEY, M.D.

President of the American Medical Association, 1924–25
Part of His Address at the National Convention

The relation of medicine to this problem is obvious. Methods of birth control have to do with the human body; and that is our province. As I have said before, medicine has not given to the problem the attention that it deserves—not because medicine is not confronted with it every day

—but because the subject is taboo and the adequate exchange of scientific knowledge concerning it illegal. It is a problem that requires the technical skill of medicine. I think it must be said that its methods now are crude and unsatisfactory. There is a possibility, with our present knowledge of biological reactions and with intensive consideration of the subject, that improvements might be made that would put these methods on a plane that has hitherto been impossible and that would make them practical agencies for effectively influencing the future history and happiness of mankind. These possibilities are so large that they are worthy of the best efforts that medicine has to offer.

At the present time, however, the situation could hardly be more unsatisfactory. The first prerequisite to satisfactory study of any subject is free access to knowledge of it, and that necessitates the unrestricted interchange of experience and information among scientific men. That is not allowed now upon the subject of methods of birth control. We are not even in a position where we can freely determine the merits and demerits of the subject. It is not that methods of birth control are not discussed and practised; they are everywhere. But the facts—and the fiction—are passed from individual to individual—ignorantly, crudely, unsatisfactorily and in ways that often are vicious. It is only scientific, decent discussion of the subject that is prevented, the sort of discussion that is necessary and can only be had, when it is untrammeled, among self-respecting men, who can bring to its consideration knowledge and wisdom. This situation is medieval. From the history of similar situations in the past it cannot be doubted that it must in time give way. To see that this is brought

about as quickly as possible is a thing worthy of the vigorous efforts in that direction that are now being made.

LORD DAWSON OF PENN, M.D.

Physician to King George

Birth control is here to stay. It is an accomplished fact, and for good or evil has to be accepted. Although the extent of its applications can be and is being modified, no denunciations can or will abolish it. . . . The reasons which lead parents to limit their offspring are sometimes selfish, but more often honorable and cogent. The desire to marry and to rear children well equipped for life's struggle, limited incomes, the cost of living, burdensome taxation, are forcible motives, and further, amongst the educated classes there is the desire of women to take part in life and their husband's careers, which is incompatible with oft-recurring children. . . .

Birth control by abstention is either ineffective, or if effective is pernicious. I will next consider artificial control. The forces in modern life which make for birth control are so strong that only convincing reasons will make people desist from it. It is said to be unnatural and intrinsically immoral. This word "unnatural" perplexes me. Why, civilization involves the chaining of natural forces and their conversion to man's uses. . . . Surely the whole question turns on whether these artificial means are for the good or harm of the individual and the community. . . . The justifiable use of birth control would seem to be to limit the number of children, when such is desirable, and to spread out their arrival in such a way as to serve their true interests and those of their home.

WALTER CARR, M.D.

Former President of the London Medical Society

Assuming, as I think we justifiably may, that in the future Utopia birth restriction will not only be practised but encouraged, what directions will the medical profession give for the prevention of conception? Nature has provided so carefully for the all-essential factor of the propagation of the race, that possibly no method of restriction can be devised which will be absolutely free from drawbacks or disadvantages of one kind or another, whether of possible damage to health or of diminution of pleasure. Such conceivable drawbacks, however, can be hardly comparable to the evil results, at least in town life, of families of unlimited size.

AUGUST FOREL, M.D.

Formerly Professor of Psychiatry, and Director of the Insane Asylum in Zurich, Switzerland

To build an ever-increasing number of hospitals, asylums for lunatics, idiots and incurables, reformatories, etc., to provide them with every comfort and manage them scientifically, is undoubtedly a very fine thing, and speaks well for the progress and development of human sympathy. But what is forgotten is, that by concerning ourselves almost exclusively with human ruins, the results of our social abuses, we gradually weaken the force of the healthy part of our population. By attacking the roots of the evil, and limiting the procreation of the unfit, we shall be performing a work which is much more humanitarian, if less striking in effect.

SIR W. ARBUTHNOT LANE

Famous English Surgeon and Gynecologist

There is no doubt that public opinion is gradually favoring limitation of families. Our only real enemy is the church, and this body is not at all consistent. Many of the officials of the church undoubtedly limit their families.

They base their objections on certain somewhat obscure texts of the Old Testament.

As I go to the slum districts, the misery there strikes me like a blow. What all the women are longing for is that they shall have only enough children to rear properly and decently.

Birth control is practised in Mayfair and Belgravia. Why should it not be practised in Stepney and Battersea?

The question of prophylactics is after all only a question of common sense. Provided people use the right sort of mechanical effects, not only is no harm done, but morality is vastly strengthened.

The whole thing is a question of right and wrong. It is obviously a grave sin to bring into the world children who are evidently damned from birth. It is surely better to impose a limit, and have a happy, healthy family.

PRINCE A. MORROW, M.D.

First President of the Society of Mental and Moral Prophylaxis. Prominent Urologist of New York City. Author of many books on Syphilis, Eugenics and Social Hygiene

There is no fact better established than that a man can transmit only that which he is. If his system is weakened

by excess or tainted with disease he can beget only physical weakness, or beings tainted with disease. The syphilitic, the consumptive, the epileptic, the alcoholic, should not produce his kind.

DR. ABRAHAM JACOBI, M.D. (1830–1919)

Well-known American Physician. Former President of the American Medical Association

Whoever is infected with syphilis, advanced tuberculosis, epilepsy, insanity, feeble-mindedness, must be prevented from, must be warned against, or punished for generating a child. He is an enemy of the present and the future, and should be treated as such. Babies who may prove dangerous through inheritance must not be born.

JOS. B. DE LEE, M.D.

Well-known Author and Lecturer on the Subject of Obstetrics

The [tuberculous] woman should be instructed how to avoid pregnancy in the future. Something must be done until the woman is cured of her tuberculosis, so that she may safely go through a confinement, because every accoucheur recoils with horror from the task of repeatedly doing abortions on these tuberculous women.

H. G. BRAINERD, M.D.

Former President of the California Medical Association

It is up to our profession to urge the repeal of the laws against Birth Control. Every child has a right to be well born, and parents who are not able to take care of them after they have come, should not bring children into the world.

S. ADOLPHUS KNOPF, M.D.

Formerly Professor of Phthisiotherapy at New York Post Graduate Hospital, Director of National Association for the Study and Prevention of Tuberculosis, and Author of Many Works on Tuberculosis

In some of our tuberculosis clinics where we insist on an examination of all the children of the tuberculous parents visiting these special dispensaries, we find as many as fifty per cent of the children to be afflicted with tuberculosis as the result of postnatal infection. In taking the history of a patient in my private consultation work, it is my invariable custom to ask whether he comes from a large family, and if so whether he was among the first or later born children. As a rule, especially among the poor, it proves to be one of the later born (the fifth, sixth, seventh, eighth, ninth, etc.), who contracts tuberculosis, and I believe this to be because when he came into the world there were already many mouths to feed and food was scant, for the father's income rarely increases with the increase of the family; and the mother, worn out with repeated pregnancies, cannot bestow upon the later born children the same care which was bestowed upon the first.

MORRIS H. KAHN, M.D.

Practicing Physician, New York City

It is sometimes stated by opponents of birth control that contraceptive methods are known by every married person and that the fault and immorality of having a large family of unprovided for dependents lies not in ignorance of contraceptives but rather in a lack of determination on the part of one or both parents to use preventive measures.

Of 464 women, 192 knew of no contraceptive methods and therefore had used none. The remaining 272 women knew of one or more methods, more or less effectual, for the prevention of conception. Of the 192 women who were ignorant of the use of contraceptives, practically one-half, or 104, had a history of abortions, with a total of 202 abortions, or an average of two apiece. In contrast with this, of the 272 women who knew of one or more contraceptives, only one-fourth, or seventy-two, had undergone abortions, with a total of 122 abortions, or an average of only 1.6 apiece.

The above data, however, tend to show that ignorance of contraceptives not only is a great factor in the production of large families, but is also a great factor in increasing the number of abortions.

CHARLES E. DE M. SAJOU, M.D.

Emeritus Professor of Materia Medica, Therapeutics and Pharmacy. Professor of Applied Endocrinology

The fact that the number of deaths is over twice greater among the children of large families than it is among those of small families (four children or less) indicates that besides weakening the vital fabric of the mother, excessive reproduction debilitates that of the child and its defensive powers against disease. Hence the predilection of children of large families to disease, particularly those of the poor through deficiency of food, crowding in small quarters, uncleanliness, etc. When we add to this the inevitable neglect and lack of moral training, the fact that large families are prolific sources of youthful criminals, prostitutes, narcotic addicts, etc., becomes clear. All these misfortunes would be mitigated and even prevented to a marked degree if birth

control or rather conception control were studied and practised with due care.

WALTER TIMME, M.D.

Well-known Endocrinologist, New York City

Nature having rules and laws for the propagation and reproduction of plants depends upon the stray wind or insects to carry pollen from male to female. Nature didn't do that with us. She gave us a reproductive mechanism which is voluntary and she gave us a mind. This means that we can reproduce when we will, and means also if we will. Now she sits back and says, "For heaven's sake, don't destroy your race by reproducing anything but what you will."

OPINIONS OF PUBLIC MEN

THOMAS HUXLEY

English Scientist and Writer

So long as unlimited multiplication goes on, no social organization which has ever been devised or is likely to be devised, no fiddle-faddling with the distribution of wealth will deliver society from the tendency to be destroyed by the reproduction within itself, in its intensest form, of that struggle for existence the limitation of which is the object of society.

ROBERT G. INGERSOLL

Humanitarian, Author and Lecturer

Ignorance, poverty and vice must stop populating the world. To accomplish this, there is but one way. Science

must make the woman the owner of herself, the mistress of her person. Science, the only savior of mankind, must put it in the power of woman to decide for herself whether she will or will not become a mother.

OWEN R. LOVEJOY

General Secretary National Child Labor Committee

The right of children to be well born, the right of children to be born only when they are desired and when conditions are such as to guarantee them a fair chance for growth and education, touches the child labor problem very closely. . . . We can fairly say that with a knowledge on the part of parents in the poorer classes of the means by which their children may be limited to the number that could be reared and supported in decency, perhaps one-third of all the working children in this country could be saved from a life of exploitation and from an existence made well-nigh unbearable through lack of early opportunity and training.

THEODORE ROOSEVELT

President of the United States 1901–1909

I have never preached the imposition of excessive maternity on any woman.

MATTHEW ARNOLD

A man's children are not really sent, any more than the pictures on his wall or the horses in his stable are sent; and to bring people into the world, when one cannot afford

to keep them and oneself decently and not too precariously, is by no means an accomplishment of the Divine Will or a fulfillment of Nature's simplest laws, but is contrary to reason and the will of God.

DR. CLARENCE C. LITTLE

President of the University of Michigan

There is a need to slow down the production of children to a point where the child can be guaranteed proper care and education. To produce to the point where we cannot adequately care for them is un-Christian. I am not suggesting a revolutionary thing. Limitation is now a fact in many families. The need of limitation of the population was admitted by the immigration limit.

RAYMOND PEARL

Professor, Johns Hopkins University

After many years' study of social problems. . . . I am convinced that the birth control movement is the most intelligent and scientific charitable and philanthropic enterprise now functioning in the field of altruistic endeavor.

OPINIONS OF CLERGYMEN

THE VERY REVEREND W. R. INGE

Dean of St. Paul's Cathedral, London (Episcopal)

The immediate question is whether the State has a right to put obstacles in the way of the poor when they desire to obtain knowledge which is notoriously in the possession of the upper and middle classes. . . . There is abundant

evidence that working class mothers suffer severely from their too-frequent child-bearing, and would gladly escape it. Unhappily they frequently escape it in a way which is condemned by all moralists alike. . . . The terrible prevalence of the crime of abortion in all the large towns is demonstrated by abundant facts and figures, and confirmed by numerous personal confessions. The effect of withholding knowledge is simply to increase crime.

Apart from this, in a democratic society where every adult is considered capable of helping to govern the country, it is inconsistent to keep the wage-earner in ignorance of things that he wishes to know. We may expect that in many cases he will think it wrong to use his knowledge, as many people in the upper and middle classes think it wrong to do so. Conscience is not a monopoly of the well-to-do. The working man and his wife have a right to judge for themselves, like other people.

THE VERY REVEREND VINCENT MC NABB, O.B.

(Roman Catholic) England

The movement for family restriction, as such, is not a perverted sexuality. To say that it is a perverted sexuality is to disqualify the speaker as an accurate social observer. Indeed, parents of normal instincts are found to look upon family limitation not so much as a necessity for themselves as an act of charity and even of justice towards their children. Parents threatened with eviction at the birth of another child are not, manifestly, of perverted sexuality. Parents who find it impossible to house a family of eight or ten in two or three rooms, are not to be dealt with merely by strident references to the doom of Onan.

DR. HARRY EMERSON FOSDICK

Pastor of the Park Avenue Baptist Church, New York City

The facts are clear that we should take the shackles off the physicians and let them tell the nation that there is no hope for the solution of the population problem except in the scientific control of the birth rate. You cannot trust God to bring everything off all right if you let the earth's population double every sixty years. If we do sow that, we will reap starvation, unemployment and physical and moral decay.

REV. LEONARD HODGSON

Dean of Divinity, Magdalen College, Cambridge, England

Are there not at the present time elements of novelty in our circumstances which necessitate a reconsideration of the question of birth control? Birth control of some sort is not merely permissible; it is often a positive duty.

REV. HUGH REGINALD HAWEIS

You may say children are from God. I reply, so is the cholera. I suppose you are here, among other things, to determine when and how God's laws shall operate.

RT. REV. HENRY RUSSELL WAKEFIELD

The Bishop of Birmingham

Morally as well as eugenically it was right for people in certain circumstances to use harmless means to control

the birth rate. It was contended by objectors to birth control that the object of marriage being the production of children, preventive measures were necessarily wrong. The reply might be that the procreation of children was not the only object of matrimony, and there was surely a dishonoring of that very object in having children born when not wished for by both parents.

REV. JOHN HAYNES HOLMES

Pastor of Community Church, New York City

To control his destiny, to guide his life to highest issues and accomplishments—this is the task of man if he be an immortal soul. And this means, among other things, to bring children into the world when they are wanted, when conditions are most favorable for their reception, and only in such numbers as may not hazard the perfect flowering of each separate individual life. Birth control or voluntary parenthood, rightly understood, is only one more chapter in the history of man's emancipation as a spiritual being, by which we mean his dedication to spiritual uses.

RABBI STEPHEN S. WISE, PH.D.

Rabbi at the Free Synagogue, New York City, and Noted Author and Lecturer

I rest my case as a Jew and as a Jewish teacher in giving my support to birth control, the doctrine and the practice alike, upon my faith as a Jew and a Jewish teacher that the life of the child is a sacred thing and that we ought to hold life so sacred as to be unwilling to have life come into the world unless we can surround it with those cir-

cumstances and conditions that make a full, complete, holy life possible.

A. RAY PETTY, D.D.

Pastor of Grace Baptist Temple, Philadelphia

For myself I do not believe that birth control is immoral. I think it is not only moral, but something to be greatly desired as a method of sane and sensible control for society.

CHARLES F. POTTER, D.D.

Pastor of the Universalist Church of the Divine Paternity, New York City

I believe the church should support these measures because birth control will mean, in short, happier homes, healthier children, better men and women, a stronger nation, and a nobler race.

POPULAR AND SCIENTIFIC INTEREST

Scarcely a month passes without the appearance of articles on the subject of birth control in some of the leading popular magazines by some authority on the subject. These articles deal mostly with the quantity or quality of population and with the possibility of influencing these in such a way as to benefit society. The social and economic conditions of life are discussed with relation to the size of families. Besides these magazine articles, feature-stories often appear in the Sunday editions of leading newspapers

which set forth the desirability of making motherhood a voluntary and intelligent process.

Then, too, there has grown up a substantial list of books dealing with many phases of the subject and written chiefly by authors of some prominence such as physicians, clergymen, college professors, statisticians, sociologists, and publicists. The one vitally important matter which has hitherto been overlooked is a comprehensive and scientific discussion of the methods of contraception, based on adequate clinical experimentation, with an estimate of their relative values and with their technique clearly set forth,—a gap which this book is intended to fill.

In a study of the sex life of the normal married woman, Dr. K. B. Davis [1] of the Bureau of Social Hygiene reports that in reply to a questionnaire, 730 out of 1,000 intelligent American women stated that they had used some method of contraception. This proportion is verified by a considerable [2] number of gynecologists of wide experience who state that among the intelligent portion of the community, regulation of the size of the family by artificial prevention is so far general as to be the rule.

Of the more than 10,000 women who have applied to our Clinical Research Department for information, about ninety per cent had previously used some contraceptive measures. The wide acceptation of the principle of family regulation is further seen in the hundreds of thousands of letters received by the American Birth Control League from all parts of the country. As many as 50,000 letters have been received in a single year. Since the privileges of education and independent thought have been accorded to

[1] *Journal of Social Hygiene,* April, 1922, VIII, No. 2–173.
[2] *Fertility and Sterility in Human Marriage,* Reynolds & Macomber, p. 33.

women, they are increasingly inclining to the belief that motherhood should be voluntary and intelligent, rather than accidental and indiscriminate, or regardless of circumstances and consequences. This is one of the newer adjustments made necessary because of the changed social, economic, and intellectual status of women.

It is the policy of the League not to broadcast indiscriminately birth control methods, nor to deal with the private aspects of this matter in public. Women who apply by mail to our Research Department are urged to consult their family physicians, who will best be able to advise them. As a result, an ever-increasing number of women have been applying to their family doctors. Sometimes the situation has become embarrassing to the physician because contraception has not generally been taught in the medical schools. While many authorities in various specialties call attention to certain cases which should not become pregnant, the literature is often searched in vain for some definite, reliable contraceptive information. In recent years a few articles have appeared in medical journals and a few pamphlets have been circulated among physicians. These, however, have proved to be inadequate in view of the great importance of the subject and the increasing demand for information.

The demand of the medical profession may be seen from the fact that no less than 5,000 doctors have attended the contraceptive sessions held in connection with birth control conventions in the United States during the past few years. Fully 9,000 physicians have requested and received the first Report of our Clinical Research Department in Experimental Contraception, and nearly every mail

brings letters from physicians requesting contraceptive information.

With this increasing interest on the part of the public and the medical profession in the problem, a survey was made in 1922 by the American Birth Control League of just what had been done in the field of contraception. It was known, of course, that many devices were on the market and many methods recommended, mostly by commercial interests concerned only about their own products. A number of physicians in various countries and some clinics in Europe had used certain devices for many years; but no statistics were available to show either the relative or the absolute merits of any device or method. Only approximations were available such as "this is a good method" or "this is the best device." These statements were based upon impressions gained by a limited amount of observation. No accurate proofs or data of a scientific character were available.

It was felt that the only way to ascertain the relative values of methods was to treat large numbers of women by different methods and to observe them over a sufficient period of time (at least a year). Only by following up these cases individually and knowing all the details of their experience and its effects, could the real value of the methods be learned. With this in mind, the Clinical Research Department of the American Birth Control League was established in January, 1923.

Up to the present time, December, 1928, more than 10,000 women have been advised, and we are beginning to be in a position to get some scientific data with a fair degree of accuracy. In the latter part of this book (Chapters XI

to XIII), will be found a description of this Research Department and of some of its results, including statistical forms, charts and tables. As a matter of fact, most of the subject matter of this volume is the result of observation in this Clinic.

CHAPTER II

Basic Phases of Contraception

BEFORE entering upon the detailed discussion of the many specific methods of contraception, the author believes that it may aid the reader in the evaluation of methods presented in Chapters III to VIII, if consideration is first given to the general phases and principles of the subject, including such basic topics as the reliability of contraceptive measures, medical indications for the use of contraceptives, usual contra-indications to pregnancy, the conditions under which pregnancy takes place, the mechanical and the chemical factors of contraception, and the essentials of an ideal contraceptive.

Reliability of Contraceptive Methods

A belief common to American physicians is that the only reliable safeguard against pregnancy is complete sterilization. In a strictly technical sense, this is true; but comparatively few members of the medical profession are aware of how remarkably effective the best contraceptive measures now are.

Among some physicians there is a great deal of thoughtless talk about "no one hundred per cent method." It is fair, then, to ask, have we any one hundred per cent methods in medicine, or surgery, or serum, or vaccine therapy?

What physician will guarantee his patient a one hundred per cent benefit from his treatment of even the commonest ailments, such as asthma, rheumatism, hay fever, and the like; or the ordinary diseases of the heart, lungs or kidneys? The only ethical attitude a physician can take is to guarantee nothing. He can only promise to do his best.

This being true, how clearly absurd it is to single out one department of medical practice, namely contraception, for criticism on the ground that it is not one hundred per cent perfect, and for that reason to regard it with indifference! If all physicians had adopted the same general attitude toward every other branch of medicine and surgery, their profession long since would have discontinued its activities.

As a matter of fact, there are very few fields indeed in the practice of medicine where such uniformly good results can be obtained as in contraception. It is a fact that the method described in Chapter VIII of this book is safe, simple and, when properly followed, *almost uniformly reliable*. In the thousands of cases in which it has been employed during the last six years by our Clinical Research Department, it has proved highly successful, and other less effective methods have given a fair measure of success.

If such good results uniformly followed the efforts of physicians in other departments of medicine, most members of the profession would have to seek other paths of usefulness. When a physician arbitrarily refuses to give contraceptive advice in a case where pregnancy is contra-indicated, his decision is too often prompted either by the lack of knowledge and of technique of a suitable and trustworthy contraceptive method, or by indifference or by some personal prejudice.

In contraception, as in other fields of medicine and surgery, the physician will find that he needs in his armamentarium a repertory of methods from which to make his selection. He will find that no one method will suit every case. The well-informed practitioner will choose the particular method adapted to the mental and physical condition of his patient, or a combination of methods; or he may find it expedient to use one method at a certain time and a different one at another. In other words, he will study and meet the patient's individual requirements.

For this reason, although dwelling on the reliability of the clinically tested method discussed in Chapter VIII, the author first presents in adequate detail the technique of commonly used methods, old and new, including the following:

The Condom
Cervical pessaries
Stem pessaries
Powders
Effervescent tablets
Suppositories
Contraceptive jellies
The douche
Coitus interruptus
Coitus reservatus
Abstinence

Often a given method will fail not because of any inherent fault in the method itself, but owing rather to lack of care on the part of the patient. It is assumed, therefore, that each method discussed in Chapters III to VIII is properly adapted to its particular case and that the technique employed is perfect. The technique will be described in detail so that physicians may instruct their patients how to achieve the best results. If, for instance, the condom is chosen, it is not enough to say, "Have your husband use

a rubber condom"; nor if douching is advised is it enough to say, "Take a douche." To the physician, the technique in both cases is so obvious that he is inclined to assume that it is equally well known to the patient. Where a condom is recommended, full instructions for its use should be given. In prescribing a douche, the physican should specify the exact quantities of its ingredients, explain how to prepare it, and how and when to use it. Similarly, complete directions should be given for every other method recommended.

MEDICAL INDICATIONS FOR THE USE OF CONTRACEPTIVES

SOME GENERAL ASPECTS

The chief interest of the physician in contraception is for the cure or prevention of disease. The cure of disease requires that a definite pathology exist. The prevention of disease is less tangible and specific, yet none the less real, and even more important. For instance, there is the woman whose four or five children have come in rapid succession, who has been losing weight and whose appearance indicates a debilitated condition. She may not have a definite pathological lesion; yet in the interests of health this woman should be given contraceptive advice in order to permit her properly to recover so as to give birth to healthy offspring without too great a hazard of her own life. This course would be indicated all the more clearly if the woman was the wife of a working man whose wages were already inadequate to provide for his family. Thus poverty, resulting in overcrowding in poorly ventilated and lighted homes where food and clothing are scanty, is a great factor in the causation of disease and, therefore, may under certain con-

ditions be considered a medical indication for contraceptive advice.

Besides poverty as a factor in the causation of disease, domestic troubles often play a considerable part. While divorce is fairly common, its cost is still beyond the reach of the unskilled laborer, who often resorts to desertion which has been called "the poor man's divorce." Only those who are directly in contact with social service or with the work of courts of domestic relations realize the extent of this evil. Women married to improvident men who drink or gamble and often leave their homes without funds for long periods, revolt against bringing more children into the world under such circumstances, even though they may forgive their oft-repenting husbands. This is the class from which the largest number of our dependents, delinquents, criminals and paupers come.

Mothers of this type often put their children into nurseries and homes while they go out to work to earn their living. The tasks of industry by day and the care of the family by night soon wear these women out. Such a woman, therefore, may need contraceptive protection against such a prodigal father in the interests of her health. Thus domestic conditions may present indications for contraception from a health viewpoint.

These cases are not the average experience, but they are by no means uncommon, and are presented here to illustrate the fact that intangible economic and domestic conditions have a bearing on the causation of disease and may present conditions in which contraception is indicated from the medical standpoint. These conditions also illustrate the difficulty of writing in a word or two the exact reason for giving contraceptive advice. Often the term general de-

bility is used in these cases for lack of a better and more specific term.

People with various neuroses or psychoses are often treated by their friends with a certain amount of unconscious disgust because they have "a case of nerves." Too often this attitude of aversion and evasion toward the neurotic and psychopath is also manifested by the physician. These maladies may, in fact, be much more distressing and life-destroying in the fuller sense of the term than are many others with gross organic lesions. Women who have had puerperal insanity, recurring attacks of insanity, or other marked psychopathic manifestations, may present medical indications for contraceptive advice as well as those suffering from epilepsy and certain forms of chorea. Drug addicts of all kinds, including chronic alcoholics, may also present indications for the use of contraceptives.

A nursing baby may be another indication for contraception. In the case of a very young mother or a very fertile woman, it may be necessary to give advice to space the children properly, thus allowing time for recovery from one birth before another pregnancy is undertaken.

To prevent abortions, is a reason very frequently given by the author on his history cards for giving contraceptive advice. These cases are usually women who have practiced ill-advised measures of contraception, and have failed. They have been so determined not to have another child that they have resorted to self-induced abortions by every conceivable device and method. The number of abortions in these cases range from 2 to 20 in a single subject. Their experiences have been all the way from mild infection to severe septicaemia. It is obviously far better for these women to have reliable contraceptive information than to

continue in such vicious practices of abortion with the grave consequences which are likely to follow.

It is realized that not one of these things is in itself a positive contra-indication to pregnancy. On the other hand, any one of them may present specific and clear indications for contraception. Much must be left to the judgment of the physician. All the economic, domestic, social and psychic elements may play their part in the causation and persistence of disease, and no rational system of preventive medicine can ignore these factors. In making a list of medical indications for contraception, it is to be borne in mind that *the diagnosis as such may mean little. It is the condition of the patient which is all important.* The diagnosed condition may be greatly modified or aggravated by other circumstances. To repeat, it is a matter of judgment for the physician to decide each case on its merits.

USUAL CONTRA-INDICATIONS TO PREGNANCY

In a book of this kind, it is neither necessary nor desirable to discuss in any great detail the contra-indications to pregnancy. Reference to the subject is often found in general medical literature, and most of the specialties which deal with vital functions touch upon the subject. Most physicians are not in practice very long before they meet in their professional work women who for one reason or another cannot undertake pregnancy without serious risk. Many may have had to terminate a pregnancy of a woman to save her life. Then has come the question of how to protect her in the future. A brief statement only is given of some of the more common causes in which pregnancy may be contra-indicated.

PELVIC DEFORMITY

It will be immediately apparent to any general practitioner that there are cases of pelvic deformity where, natural delivery being impossible, Cæsarean section should should not be performed indefinitely. "Once a Cæsarean always a Cæsarean," is a maxim among some physicians. When a Cæsarean has borne as many children as she desires, or if after a single delivery it is manifest that she should not become pregnant again, a sterilization operation may be in order.

PERNICIOUS VOMITING

Cases requiring therapeutic abortion because of pernicious vomiting, or toxemia with eclampsia, may call for some method of contraception. I have seen such cases turned away from hospitals time after time with the caution: "Don't get in that condition again; you cannot go through with it!" If the woman asks what she can do to avoid it, she is given an offhand reply such as: "Do the best you can. Sleep in a separate room." In private practice also this is often all the patient is told.

Such treatment seems to the author unethical and altogether unworthy of the medical profession. If the patient were suffering from glycosuria or high blood pressure, a careful diet and regimen would be recommended. Physicians know full well that when they dismiss these toxic cases without giving the patients the kind of constructive advice which is humanly possible to follow, they will almost inevitably return. If proper contraceptive advice were given, such cases could be adequately studied and

treated, with the result that the woman then might be able to go through a normal pregnancy.

DIABETES

Diabetics are poor operative risks and temporary contraceptive measures are usually indicated.

VENEREAL DISEASES

Cases of venereal disease, especially syphilis, often call for a positive method of contraception, particularly if previous children have been defective.

HEART

There are certain cardiac cases, either with failing compensation or with good compensation where complications are present, in which contraception may be indicated.

KIDNEYS

In renal cases with marked albuminuria and in which the kidney has all the load it can carry, the added burden of pregnancy may bring about disastrous results.

NERVOUS AND MENTAL CONDITIONS

Huntington's chorea, epilepsy, a history of previous children born feebleminded, or the possession by patients of other transmissible defects, are indications for contraception. In this class sterilization may be preferable.

TUBERCULOSIS [1]

It has been estimated that sixty-five per cent of women afflicted with tuberculosis, even when the disease is in the relatively early and curable stages, die ultimately as a result of pregnancy. This could have been avoided and their lives saved had they but known the means of prevention.

PSYCHIC, SOCIAL AND SEX CONDITIONS

Not only the conditions presenting a definite pathology but also others connected with the psychic, social and sex life, may be recognized by the modern physician as calling for contraceptive advice. As the social side of medicine is developed and we recognize more fully the part which in everyday life financial, social and domestic matters play in the disturbance of health and in the causation of disease, we shall give these factors weightier consideration and deal with them as we now deal with physical causes of disease.

FEAR OF PREGNANCY

Almost all married couples look forward to having children, a desire which is normal and natural in both sexes. No class of patients appear more pleased than those who, after a period of sterility, have, under the care and advice of physicians, become parents. Every gynecologist sees many of these cases seeking relief from sterility.

There are a great many women, however, who feel that

[1] Quoted by Knopf from C. A. Credi-Hoerder, *Tuberkulose und Mutterschaft*, J. Kraeger, Berlin, 1915.

for very good reasons they should not become pregnant again,—at least not for the time being. In that state of mind they not only get no satisfaction from the love embrace, but they live in constant dread of pregnancy until the next menstruation comes to relieve them for a short time of their worry. Much of the nervousness and mental depression of married women is caused by this fear, as well as a great deal of personal and domestic unhappiness. Comparatively few physicians make inquiries of patients concerning their marriage relations; although, if this were done more frequently, many a "neurotic" or "case of nerves" would be found to be suffering from fear of pregnancy psycho-neurosis.

The desperation of these women is revealed by the rash steps they often take to avoid pregnancy; some resorting to drugs, others paying exorbitant prices for contraceptive articles of all conceivable kinds sold by unscrupulous dealers. And when these measures fail, it is appalling to observe what many of these women will do to bring on an abortion. Anything suggested, however, absurd and dangerous, will be tried; and once a woman has learned how to induce an abortion, the consequences are likely to be most unfortunate if not disastrous.

Some women though devoted to their husbands dread their approach, not because coitus is not desired, but owing to the fear of its consequences. Aversion to the sexual act, or lack of interest in it on the part of the wife, often drives the husband elsewhere to seek satisfaction; and thus begins an estrangement which sometimes ends in a definite rupture of the marriage.

In this class of cases, contraceptive advice, by removing

fear and worry, will restore the woman to a normal state of health and give her a more natural attitude toward the marital relation, and may even help to bring about conditions which will lead her in time to welcome a return to child-bearing.

MATERNAL MORTALITY AND MORBIDITY

According to De Lee,[1] more than 25,000 women die every year in this country from childbirth. There are more deaths per thousand from this cause in the United States than in any other civilized country. In women of the child-bearing period, that is, from the age of fifteen to forty-five, there is only one other cause of death greater in America—tuberculosis. About one-half of the deaths due to childbirth are in cases where pregnancy never should have occurred. The other half are from infections contracted at the time of birth. A large number of the victims of infection are the weak and debilitated.

This appalling loss of life does not tell the whole story. "Hundreds of thousands of women are flocking to our hospitals every year for the repair of injuries and the relief of the effects of disease contracted during labor. It has been estimated that half of the women who have had children bear the marks of injury and will sooner or later suffer from them." [2]

It is obvious therefore that much of the loss of life during confinement and a large part of the illnesses of married women are due to their becoming mothers when they are not physically fit.

[1] Joseph De Lee, M.D., *Principles and Practice of Obstetrics,* p. xiv.
[2] Ibid.

FŒTAL MORTALITY AND MORBIDITY

Every year in the United States about 250,000 children are born dead.[1] Of these deaths only a very small percentage is due to unavoidable accident at the time of birth. They result principally from defective development, and syphilis, and general diseases in the parents. Add to this number the thousands of children who fail to reach the age of two years, either because of inherent weakness or owing to the fact that their mothers, enfeebled by another pregnancy, lack the strength to give them the necessary nourishment and care, and some realization will be had of the appalling amount of human wastage which is continually going on, most of it avoidable.

Then add the thousands of children who do not die but are defective in body or mind and live to be a burden to themselves and to society. Most of these children are from defective parents, and this class is rapidly increasing. It seems incredible that, enlightened as we are today, we can contemplate such a state of affairs and not be tremendously concerned in bringing to bear on it the best medical skill and in making available such methods of protection as have proved themselves safe and reliable.

STERILIZATION

Only temporary contraception may be indicated in the majority of the cases considered. But many of the others

[1] Schultze estimates that five per cent of children are stillborn, dying during labor, and one and five-tenths per cent die shortly after birth, the result of the trauma of labor. Brothers found that in New York City, in the four years from 1889 to 1892, over 16,000 children were born dead or died immediately after labor."—De Lee, *Principles and Practice of Obstetrics*, p. 153.

call for complete sterilization. The fact that sterilization is permanent causes a large number of patients to hesitate. There is always the hope that conditions may change and the health improve sufficiently to warrant child-bearing. Sterilization, therefore, is usually indicated only where the mother's life would be seriously endangered by pregnancy; when the patient has given birth to several children; or if a grave condition is present, as where one or both parents have transmissible defects, or where previous children have been born defective.

CONDITIONS UNDER WHICH PREGNANCY OCCURS

INSEMINATION

In normal coitus where there is no displacement of the uterus, the semen is usually deposited in the vagina on the cervix uteri. If the opening in the glans penis is in apposition with the os uteri or in close proximity and in a direct line thereto during ejaculation, the semen may be deposited fairly well into the cervical canal, other things being equal. This is the most favorable condition for pregnancy to take place.

The modern teaching on this subject was recently summarized by Meaker [1] as follows: "Hühner has shown that pregnancy is most unlikely to occur unless semen is ejaculated directly into the cervical canal or at least onto the os externum. Such semen as reaches the vagina only is useless for fertilization, since in the ordinarily acid vaginal envi-

[1] *A Working Classification of the Causes of Sterility.* Samuel R. Meaker, Journal American Medical Association, Vol. 90, No. 2, January 14, 1928.

ronment spermatozoa are injured almost at once, lose much of their motility within fifteen minutes, and are all dead within the hour."

SEMEN

The amount of a single ejaculation of semen is from one to ten c.c. The average, about three c.c., contains more than two hundred million spermatozoa. They are capable of a rate of movement of two mm. per minute and, if they always moved in a straight line, unimpeded by the irregularities of the mucous membrane in the uterus and tubes, they could arrive in the tube in about six hours. The flow of mucus from tubes, uterine body and cervix is downward toward the vagina, and against it the sperms must make their progress. By some instinct they always head against a current, so that the downward flow of mucus attracts them in the direction of the tubes where conception normally takes place.

CHEMICAL REACTION

The reaction of the vagina is normally acid and, being unfavorable to germ life, affords a natural protection against infection. It would be fatal also to the spermatozoa if nature had not provided a special protection by producing from the cervix a secretion with an alkaline reaction which is exuded in larger amounts during coitus. The alkaline semen also tends to neutralize vaginal acidity, so that after the orgasm there is a favorable field in the upper vagina near the cervix. This alkaline reaction lasts

for only a relatively short time, however, and those sperms which have failed to gain the cervix within one hour are normally killed by the acid vaginal secretion. The acidity of the vagina is due principally to lactic acid, but it is not known whether the acidity alone kills the sperms or whether it is only a part of a bio-chemic hostility. Instances have been cited of sperms living for days in the vagina and also of causing pregnancy after being deposited on the vulva. In those cases the vaginal secretions were probably altered, possibly by a sub-acidity. At any rate such cases constitute the very rare exceptions. In the normal vagina the sperms are usually killed by the vaginal secretions within one hour.

When semen is deposited in the vagina it lies in a coagulated mass,—the so-called "seminal lake." It is known that in some mammals at the time of the female orgasm a suction takes place whereby some of the semen is aspirated directly into the cervix. Some investigators suppose that this occurs also in human beings, but no proof of the theory has yet been adduced. However, there is some evidence for believing that during the female orgasm the uterus makes excursions upward and downward which help to smear the cervix with any semen that may be present.

It follows, then, that the chief factors in temporary contraception must be:

1. Mechanical covering of the os uteri to prevent direct insemination.
2. Paralyzing of spermatozoa as quickly as possible, usually by chemical means.
3. Mechanical removal of sperms from the vagina, usually by douching after devitalization.

MECHANICAL FACTORS IN CONTRACEPTION

CERVICAL CANAL

The accompanying diagrams will illustrate how the cervical canal is dilated and shortened by child-bearing. Thus, everything else being equal, an old multipara is not so good a contraceptive risk for chemicals as is a virgin or a primipara.

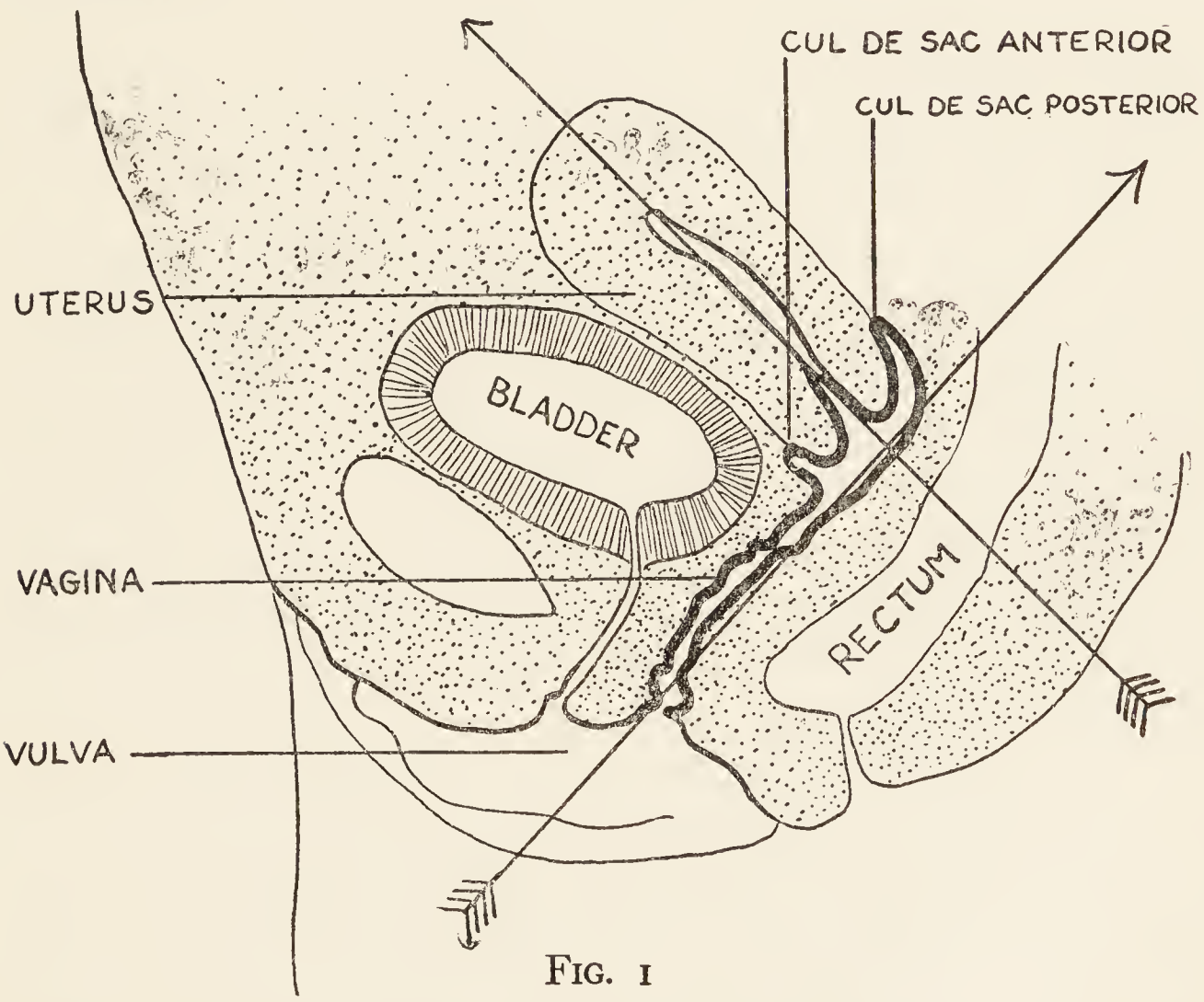


FIG. 1

Diagram illustrating normal direction and relationship of vagina and uterus.

POSITION OF THE CERVIX

This has an important influence on the incidence of pregnancy, as follows:

Normally the cervix is at right angles to the vagina as illustrated in Fig. 1. Other things being equal, this normal position is favorable to the greatest incidence of pregnancy.

Any altered position of the cervix, whether anterior, posterior or lateral, will tend to lessen the incidence of pregnancy, especially if the displacement is marked enough to prevent the direct ejaculation of semen into the cervical canal. In this case the vaginal secretions, if they are normally acid, will tend to immobilize and devitalize the sperms before they can gain the canal. This reaction will be augmented if contraceptive chemicals are used.

The long pointed cervix, which usually belongs to a juvenile generative system, favors an overshot of semen during ejaculation. This type of cervix provides therefore a good contraceptive risk. The opposite type, such as the short, stubby or amputated cervix, is a good contraceptive risk for chemicals, which will likely be well-distributed over such cervix. After the termination of coitus, this type of cervix will tend to rest in the chemicals in the vagina.

VAGINA

Cystocele, rectocele, prolapse of the uterus and lacerated perineum increase the contraceptive risk because these patients are difficult to fit with a mechanical device, and there is difficulty in placing and retaining chemicals in the proper position.

OBESITY

Obesity sometimes interferes with the proper placement of a mechanical device or chemical contraceptives by the patient, especially if the patient has short fingers or if the cervix is displaced posteriorly.

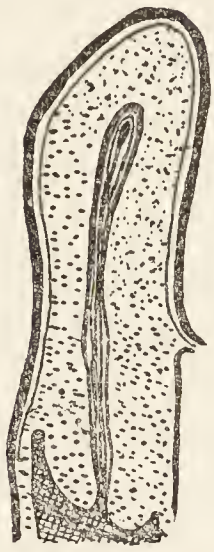
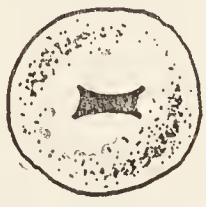


FIG. 2

Diagram of anterior-posterior section of uterus, illustrating higher attachment of vagina posteriorly making roomy posterior cul de sac.

VIRGIN

FIG. 3



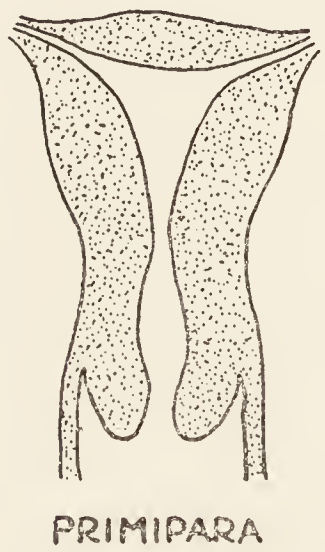
PRIMIPARA

FIG. 4

MULTIPARA

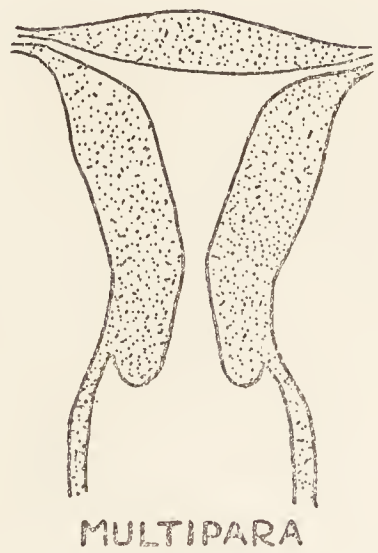
FIG. 5

Diagrams illustrating the comparative sizes of the os uteri and the relative contraceptive risks where chemicals alone are used.



PRIMIPARA

FIG. 6



MULTIPARA

FIG. 7

Diagrams illustrating the shortening as well as the broadening of the cervical canal after child-bearing, thus increasing the contraceptive risk anatomically where chemicals alone are used.

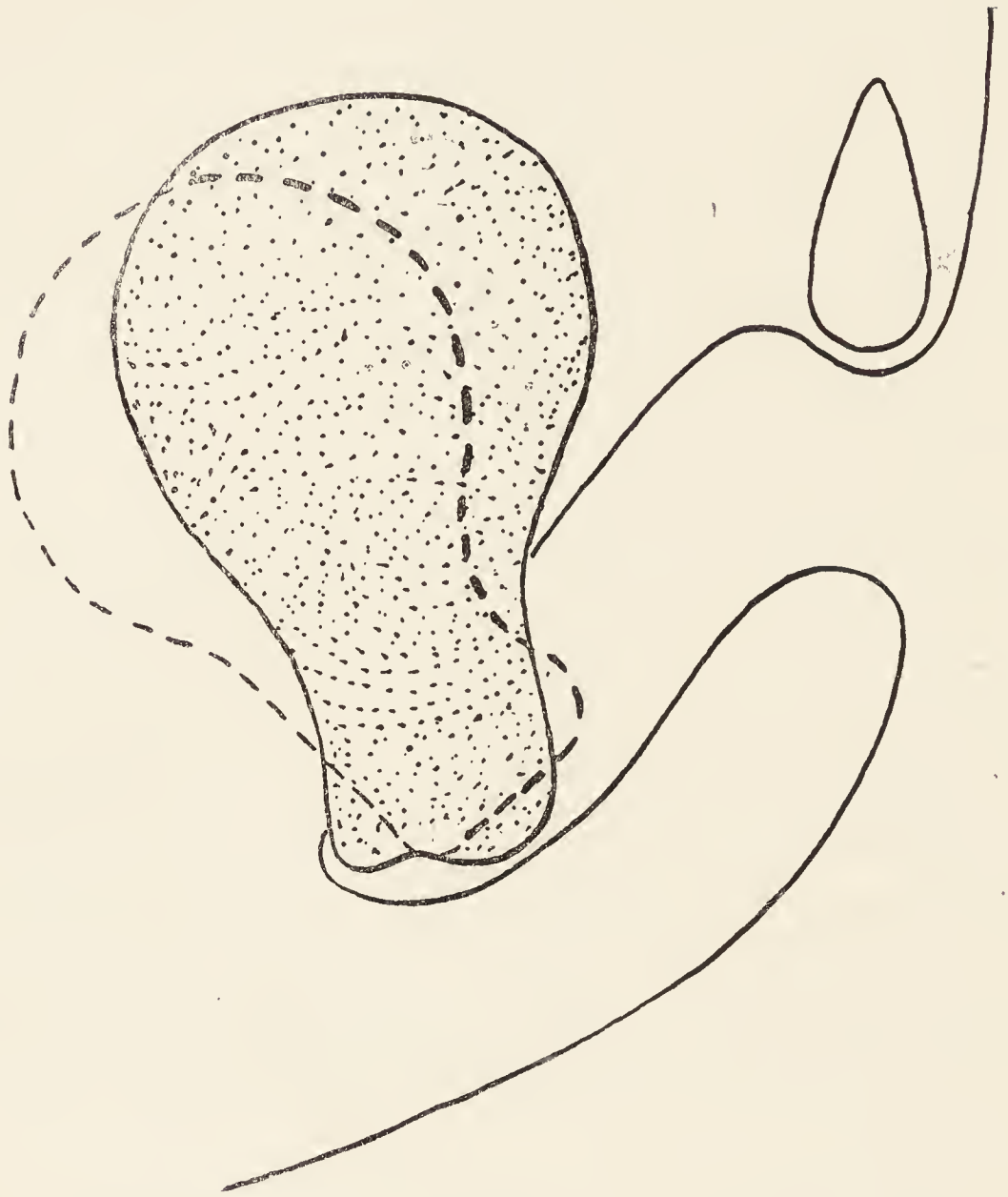


FIG. 8

In this diagram of the uterine body with the patient in the supine position, the dotted outline represents the normal relationship to the vagina. The uterine body which is shaded illustrates what happens when the uterus is antiverted; namely, a posterior displacement of the cervix into the posterior cul de sac. It can be seen that in this condition the os uteri is not exposed to direct insemination at the time of ejaculation, and that any suitable chemical in the form of suppository or jelly, or any objects such as sponge, tampon, etc., will be comparatively effective in protecting the os against insemination.

Chemical Factors in Contraception

the vagina

The vagina is normally acid, especially the lower two-thirds, and is thus antagonistic to the life of the sperma-

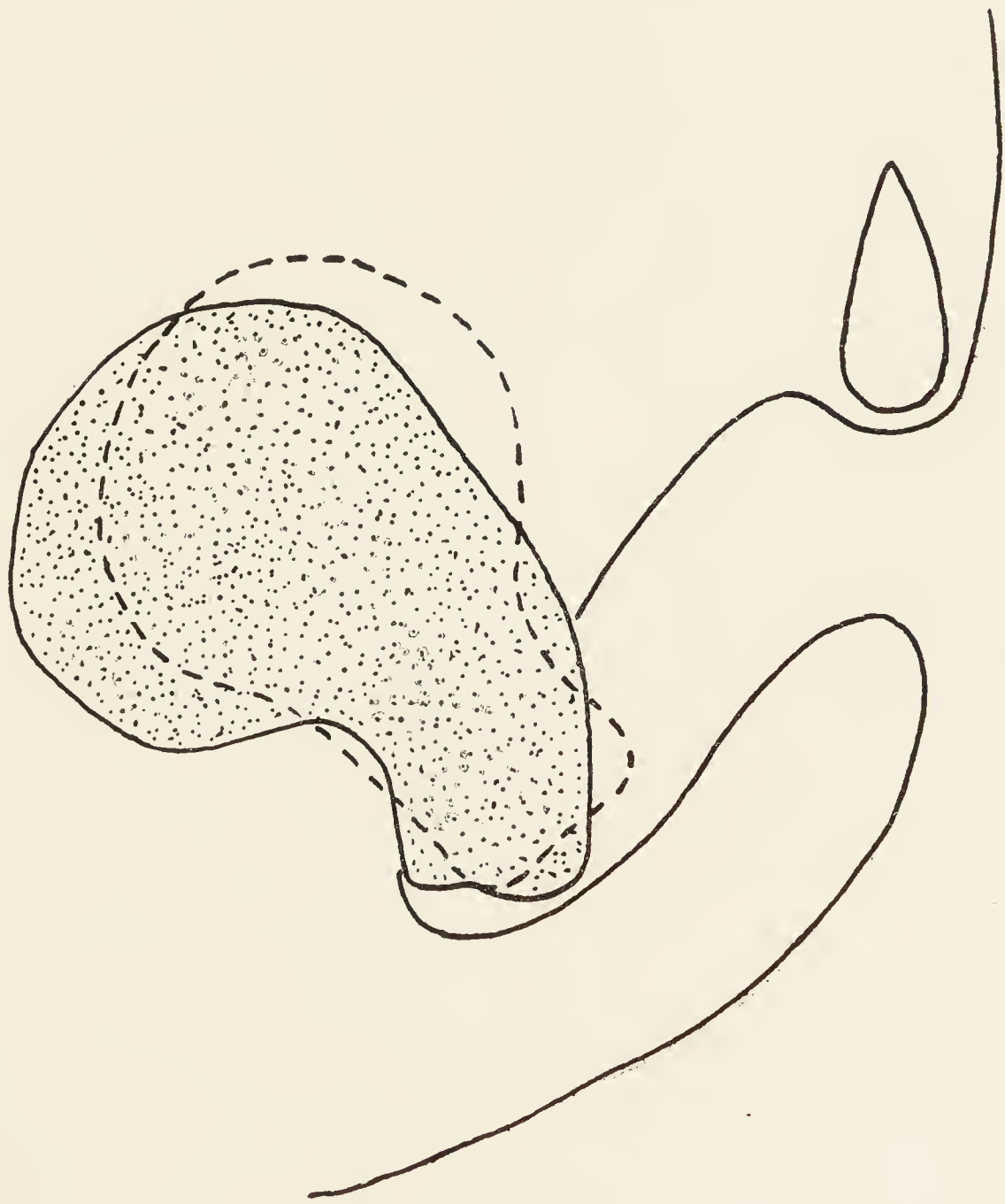


Fig. 9

This diagram also illustrates a posterior cervix with a retroflexed uterus. This is also a comparatively good risk contraceptively for suppositories, jellies, sponges, tampons, etc., because the os uteri is naturally protected from direct insemination.

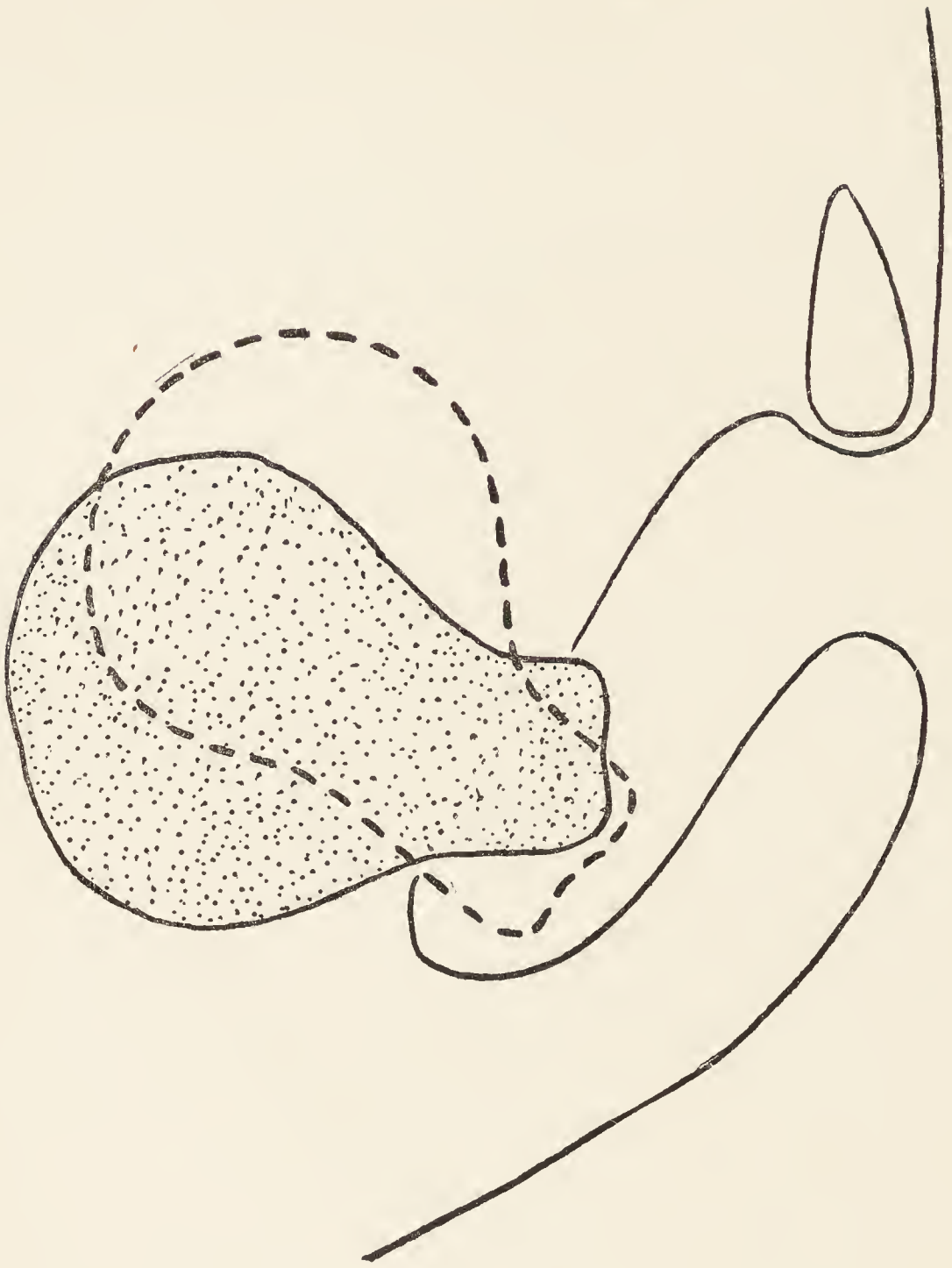


FIG. 10

This diagram of the uterus with the patient in the supine position illustrates a retroversion with the cervix displaced markedly anterior. This is not a favorable position ordinarily for direct insemination. Ejaculation in this case is likely to take place into the posterior cul de sac. Any position which favors an "overshot" therefore, is a good contraceptive risk. It has long been recognized that an improper delivery of semen, or semen delivered in the wrong place, may be a cause of sterility. Sponges or tampons are useless in this type of case, the tendency being for them to crowd into the posterior cul de sac. It is thus obvious that the position of the cervix is an important factor in prescribing contraceptives.

tozoa. Tests of many specimens show that this acidity is not uniform in all women. For convenience the reactions may be divided into three classes,—normal, sub-acid, and hyper-acid.

In a NORMALLY ACID vagina, the sperms are killed off by the secretions within one hour. This acidity is due largely to lactic acid which is produced by the bacillus of Doederlein, ordinarily present in the vagina from infancy to old age. The acidity is normally from [1] "one-third to one-half of one per cent"; is slightly less in the unmarried; and is increased during pregnancy.

In a SUB-ACID vagina, sperms may live for a considerable time. It is quite likely that those cases of pregnancy which have been reported from semen deposited on the vulva occurred in this type of case. Other things being equal this condition favors high fertility.

In a HYPER-ACID vagina, sperms are killed off quickly according to the degree of hyper-acidity. This condition of hyper-acidity occurs in a few women to a sufficient degree to make them sterile. Some of these cases of long-standing sterility have become pregnant after taking alkaline douches just previous to coitus.

THE CERVIX

The normal secretions of the cervix are alkaline. These tend to increase during coitus, so that when ejaculation occurs there may be an area of alkalinity in the vaginal vault which lasts a varying length of time according to the amount of secretion, degree of vaginal acidity, etc. This

[1] Jaschks.—*Biologie und Pathologie des Weibes Halban und Seitz,* Vol. 3, p. 1118.

is favorable to the life of the sperm, which must gain the cervical canal before the reaction changes.

INFECTIONS AND CONTRACEPTION

Experiments have shown that when infection of the vaginal tract by pyogenic organisms is present, fertility is diminished. This tends to show that acidity or alkalinity are not the only factors in influencing the life of the sperm after ejaculation into the vagina. There are bio-chemical factors not yet perfectly understood. These may come from without, as in infections, or from within, in the form of altered secretions.

It may be possible to alter these secretions by internal medication or by inoculation with serum to produce an immunity against the male sperm so that no local measures will be needed to control conception; but at present it is obvious that the best known method of contraception is to cover the os uteri so as to prevent direct insemination and then by chemicals to devitalize the sperms as quickly as possible. It is, therefore, a combination of mechanical and chemical methods. Most authorities on contraception agree on this procedure.

THE IDEAL CONTRACEPTIVE

Before entering upon the technical discussion of the dozen or more commonly used contraceptives, which requires considerable space, it will be helpful to consider here the essentials of the *ideal contraceptive*. This will aid the reader to estimate more accurately the advantages or disadvantages of each method presented, including the ap-

proved and recommended method presented in the later Chapter VIII.

It must be reliable

No matter what other good points a method may have it is of little worth if it does not give good security.

It must be physiological

It is of the highest importance that there be no interference with the normal physiological function. The parts should form their natural contact during the act of coitus. Mutual gratification should not be diminished nor should any sensation due to the method be felt. The orgasms of both men and women should occur naturally. No pathology should follow the use of the method.

The psychic factors should not be disturbed

The display or use of any complicated or suggestive apparatus or the employment of any elaborate technique just before, during, or immediately after coitus is likely to prove esthetically discordant and distracting to the mind, and to interfere with the proper performance of the act and the mutual satisfaction which should be derived from it.

The method should be in the control of the woman

Because the woman is the person most vitally concerned in the consequences of coitus, and since it is not always possible for her to secure the husband's cooperation

when she desires to use a contraceptive, it is obvious that she should control the situation.

No elaborate or bulky apparatus should be employed

Where such equipment is used it inconveniences those who live in crowded quarters and have little privacy. It is also difficult to use in travelling.

Simplicity is absolutely necessary

The majority of people will not use any method which is cumbersome or complicated, or which requires elaborate toilet facilities.

The price of the contraceptive should be moderate

The price must be well within the reach of poor people, the class most in need of preventive methods.

Summary

THE METHOD WHICH MOST NEARLY MEETS THE ABOVE REQUIREMENTS CAN BE SAID TO BE THE BEST METHOD.

CHAPTER III

Temporary Methods of Contraception—Mechanical

IN the preceding chapter, care has been taken to set forth the essential factors of contraception, the conditions favorable and unfavorable, and the requirements or elements of an ideal contraceptive. This was done to provide a basis on which physicians may readily and with some accuracy judge the merits of the commonly used methods of contraception, old and new, which are presented in the following chapters.

In the discussion of the numerous methods of contraception, the subject conveniently falls under two main headings, Temporary Methods, and Permanent Methods. Because most methods commonly used are temporary in character, several chapters are of necessity devoted to more than a dozen temporary measures; and only a brief chapter is needed for a discussion of permanent methods of contraception such as sterilization.

A temporary method of contraception is one which may be used when desired for any length of time and which does not diminish fecundity. The child-bearing process may, therefore, be resumed at any time after its use. A permanent method of contraception is one in which fecundity is destroyed.

Among the numerous temporary measures of recent

times are the condom and several types of pessaries presented in this chapter. These are mechanical in character. Some physician may think that the douche may also be classed as a mechanical method, but in this volume it is presented in the separate Chapter V in connection with the discussion of Chemical Methods because of the growing practice in recent years of employing with it some form of spermatocide. Then will follow in Chapter VI a discussion of a number of miscellaneous temporary methods which require no apparatus, such as Coitus Interruptus and Abstinence.

THE CONDOM

The condom, or sheath, has been used in one form or other for more than two hundred years. It has been made of silk, of the peritoneal membranes of animals (sheep and goats), also of "fish skin" or gold-beater's skin, and of rubber. The skin and rubber condoms are the most commonly employed at the present time.

Gynecologists in Europe and America have as a general rule favored the condom above all other contraceptive methods. The fact that it affords protection against venereal disease as well as against pregnancy, together with its convenience and comparative effectiveness, account for its popularity. No less than forty per cent of the more than 10,000 women who have attended our Clinical Research Department have reported the previous use of condoms by their husbands.

THE SKIN CONDOM

This is made of the "blind gut," or cæcum, of the sheep. It is supplied in various sizes, but because it shrinks and hardens with use it is advisable to select the largest.

It sometimes has a purse string at the base, and it is usually sold laid out flat. Often, however, skin condoms are faulty and the minute holes in them are filled with paste which is easily dissolved by moisture. The fact that they must always be moistened before using is usually distasteful to the man. The paste used for binding the fold which holds the purse string in place often gives way with the first wetting. No string, in fact, should be trusted. It seldom holds, and it is not always possible for the man to know that the condom has not slipped off. Moreover, a string tied tightly around the penis is very unsatisfactory. A rubber band of proper size may be used instead.

The skin condom can be worn several times. After it is washed, it should be kept in denatured alcohol which will preserve it and keep it soft. The care that this type requires, as well as its inconvenience in other respects, has led to the more common use of the rubber condom.

THE RUBBER CONDOM

This device is at present very popular in the United States, about 2,000,000 being used daily. It is composed of thin silky rubber, and is held in place by its own elasticity. Its advantages over the skin condom are its easier application, the fact that it stays in position better, and its relative cheapness. However, it is far more likely to rupture and, because of its tighter fit, it interferes with sensation more than does the skin sheath.

The American-made product varies in quality of texture, in thickness and color; but all are of about the same size so that differences in male anatomy are not taken into account. If the penis is small, the present product tends to slip off; if unusually large, there is considerable danger

of the rubber breaking under the strain of ejaculation. Like the skin condom, it may be used several times if properly washed and powdered, but with every use the chance of rupture increases.

Disadvantages

The tendency to break is the greatest objection to the rubber condom. Patients of the American Birth Control League who have relied on it for protection report a failure of fifty per cent. However, the families in which the use of the condom may be satisfactory do not, of course, appear at the Clinic. There is a wide variation in quality of the condoms now marketed, the best being quite trustworthy when properly used. For this reason *every condom should be well tested before using.*

Diminution of sensation is often so pronounced that some men refuse to employ condoms, especially rubber condoms; and many women share this attitude, but usually in lesser degree.

Adjustment of the condom just before coitus produces in some cases an adverse psychic effect on the male.

This method is entirely controlled by the man.

TECHNIQUE

If the skin condom is used it should first be tested for defects by filling with water. When subsequently used, the alcohol in which it has been kept should be washed off. Because of the trouble of doing this, many men prefer to use a new one each time. The sheath should be drawn on while still wet and should be secured, as before advised, with a rubber band. A lubricant such as vaseline or a contraceptive jelly may be used if desired to facilitate adjustment.

The rubber condom should be tested as the surgeon tests rubber gloves, by inflating with air and squeezing to discover any leaks.

If not already rolled, draw it over the first and second fingers of the left hand, spreading them slightly apart to secure a gentle pressure, and then with the right hand roll the rubber up to the end. A tight roll is the most satisfactory. It should not be applied until the penis has been anointed with contraceptive jelly, which will diminish to some extent interference with sensation.

In unrolling the rubber over the penis, leave at least a half-inch of the condom clear at the tip to receive the semen and prevent breakage. Smear the entire condom with contraceptive jelly, which will overcome its dryness, generally facilitate entrance and help to insure against rupture during intromission.

If the woman does not inject contraceptive jelly previous to coitus, an effective douche should be available in case the condom breaks or slips off.

INDICATIONS

Conditions found in stout women where the placing or retaining of a pessary is difficult.

Prolapse of uterus. Old multiparæ with relaxed vaginal walls or poor pelvic floor.

A tense or sensitive vagina which makes it difficult to fit a pessary, as is usually the case during the first few months after marriage.

(NOTE: The first two classes are poor contraceptive risks at best. If the husband will cooperate, the condom used with a preliminary injection of contraceptive jelly may be the best method available.)

THE FRENCH PESSARY (PESSAIRE À CHAPEAU)

The French pessary, also called cap or cervical pessary because it fits on the cervix as a cap, is made with a dome of thin rubber rising from a thick hollow rubber rim about

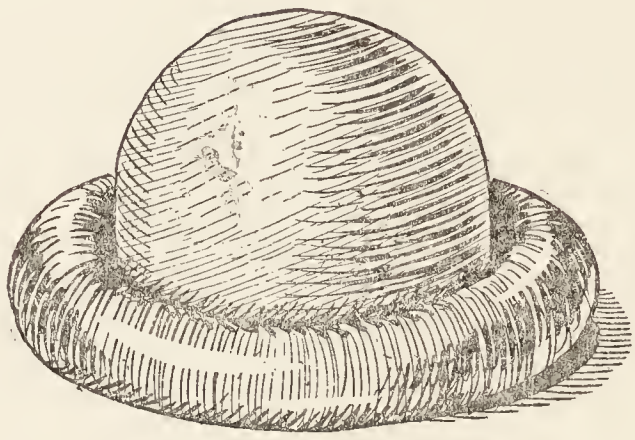


FIG. 11

French Pessary—Cervical cap.

one-third of an inch in diameter. The dome part is designed to fit snugly over the cervix and to be held in place partly by friction, partly by suction, and partly by the rim's purchase on the vaginal walls. They are made in three sizes—small, medium and large—and are recommended for nullipara, primipara and multipara, respectively. They vary greatly in texture, and in the shape of the dome. The rim also is of different thicknesses and often it is too rigid. In this country it is difficult to secure well-made French pessaries of uniform shapes, and. for this reason among others, the method has not given the best results. Another reason for its failure lies in the fact that these pessaries are usually purchased direct from dealers instead of being secured from physicians skilled in contraceptive technique.

Recent clinical experience with this method at the

Medical Centres of the Illinois Birth Control League is given in Chapter XIV.

FITTING THE FRENCH PESSARY

The patient is placed in the gynecological position. The cervix is then palpated to ascertain if a small, medium or large size is required. When the pessary is chosen it should be well lubricated; it is then inserted into the vagina in a horizontal position. As soon as it passes the introitus it should be turned so that the cap or concavity is toward the patient. In this position it is pushed downward and backward into the posterior cul de sac or until it is opposite the cervix. The next step is to push it upward onto the cervix which it should fit snugly.

INSTRUCTING THE PATIENT

Every patient should be taught first the necessity of cleanliness of hands, parts and material. She should then be taught to recognize the cervix by touch. This is sometimes difficult in very obese women with short fingers and in women with posterior displacements of the cervix. When the patient can recognize the cervix she can always be sure a pessary is in correct position by feeling the mass through the soft dome of the pessary. The pessary may be placed in position any time before coitus. Its effectiveness will be greatly increased by inserting a half teaspoonful of contraceptive jelly in the cap before applying, as well as smearing it all over liberally with the same to facilitate its entrance. It should then be left in position until the next morning. Experience has proven that this procedure gives

much better results than when it is removed soon after coitus. The contraceptive jelly and the vaginal secretions are thus permitted to devitalize the sperms before the os is uncovered which is protected by the cap. The next morning a two-quart warm water douche is prepared, plain or medicated as desired. One-half is taken before removing the cap and the other half after. The pessary should then be washed with soap and water, then rinsed, thoroughly dried and covered with talcum powder or, even better, with corn starch, and placed in a box kept for this purpose until it is needed again. If properly fitted by a competent physician, this pessary may be expected to give fairly good results. Konikow [1] reports two hundred cases with only four and five-tenths per cent failures.

Disadvantages

1. It is difficult for user to adjust in some cases.
2. It does not fit well on enlarged or badly lacerated cervices.
3. It cannot be retained on a short, stubby cervix.
4. It tends to slip out of position in some cases, especially with relaxed vagina.

THE MIZPAH—ALSO CALLED THE AMERICAN PESSARY

Despite the drawbacks and some failures which attended the use of the French pessary, many students of contraception felt that the principle of covering the os uteri was sound. Consequently they welcomed a new pessary which was based upon this principle and which seemed to overcome some of the objections to the older French cap.

[1] First American Birth Control Conference Proceedings, 1921.

Therefore, this Mizpah has to a large extent displaced the French type in the United States.

DESCRIPTION

It is a modification of the French pessary, is of the same cervical type, and fits like a cap on the cervix. It is made in two separate parts. The rim is solid and contains a groove into which the rim of the dome, a thin rubber cap, is snapped. The inner part of the rim is so constructed

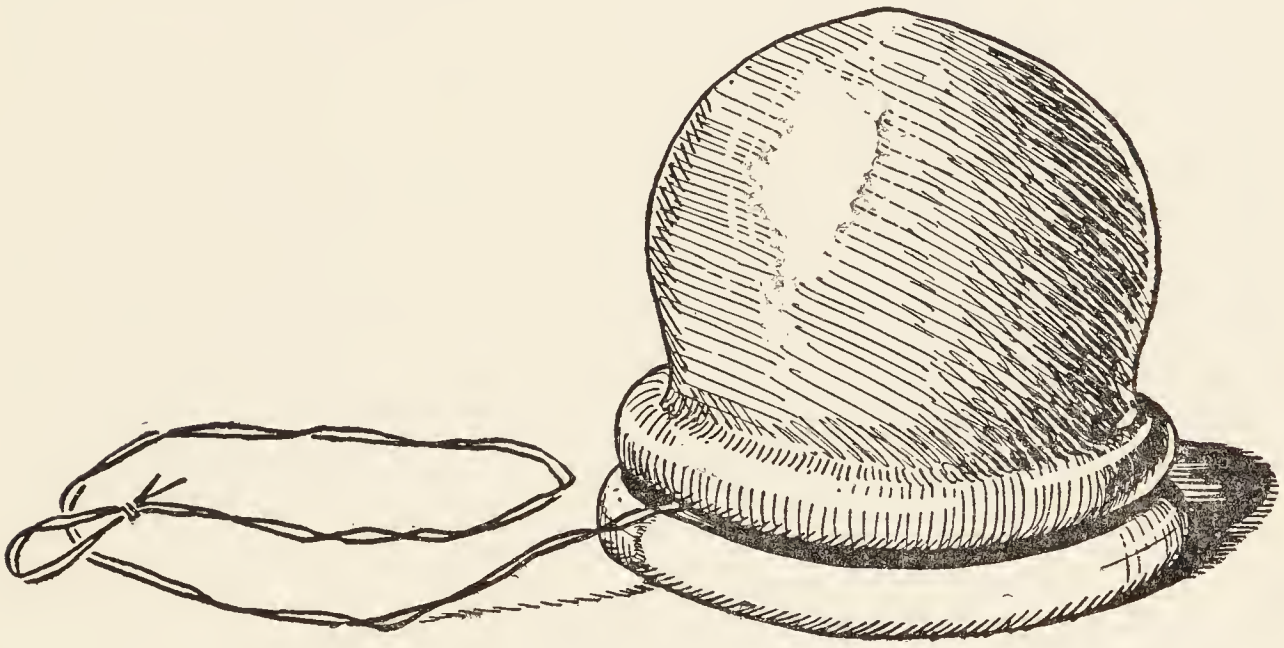


FIG. 12

Mizpah Pessary—Cervical cap.

that it clings more firmly to the cervix than does that of the French pessary. This is accomplished by means of a cuff of soft rubber made in the shape of a cone. The upper diameter is twice that of the lower end. When this is fitted on the cervix the lower, tapered end tends to cling to the cervix. It is, therefore, not so easily displaced as is the French cap. In cases of cystocele or rectocele, when a diaphragm cannot be fitted, the Mizpah often serves very

well. It is very difficult to fit it on a cervix which is displaced posteriorly, or to fit it to a very short, stubby cervix.

FITTING

Mizpah pessaries are furnished in three sizes,—small, medium and large, the small and medium being most frequently used. After determining by palpation the size

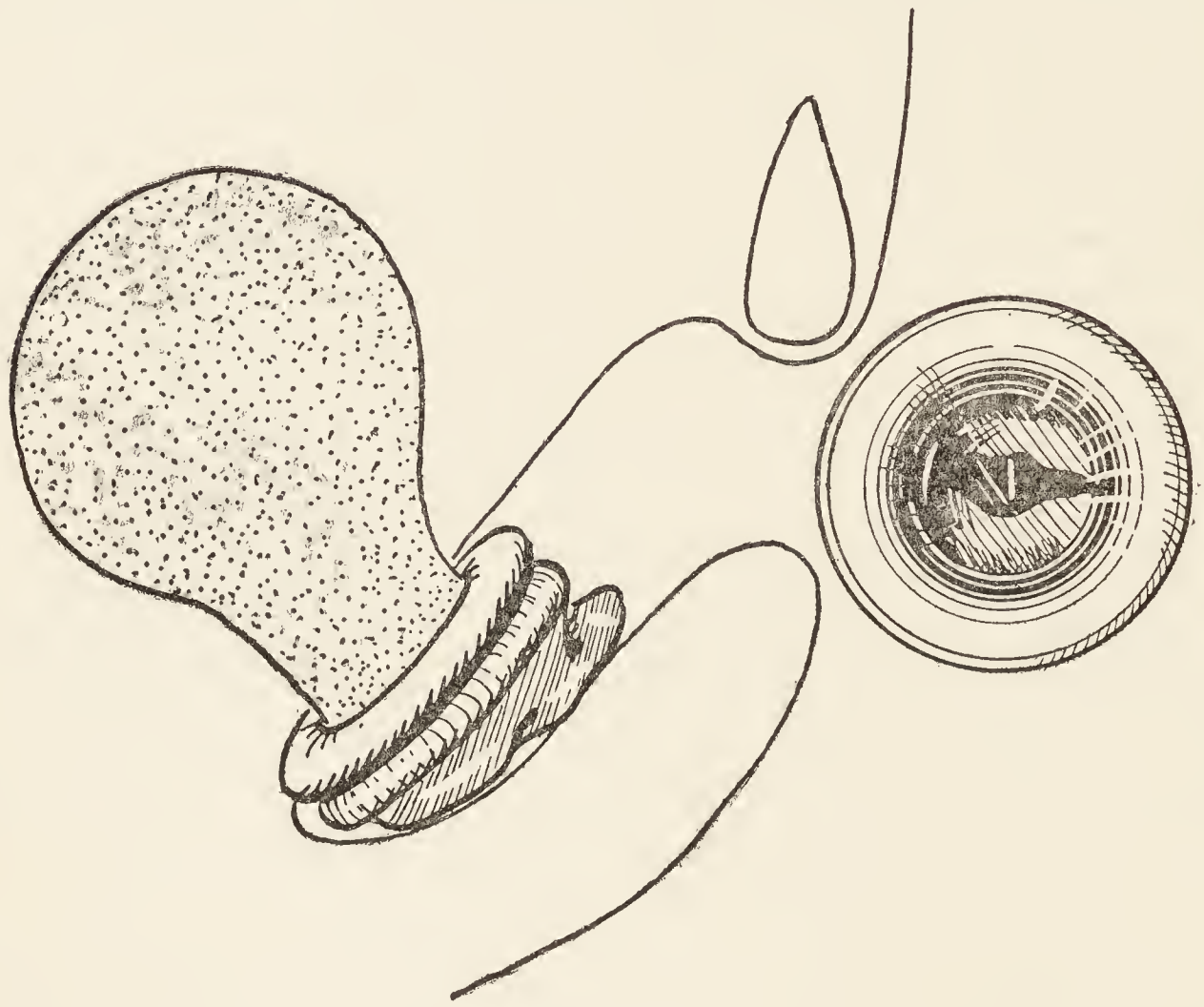


FIG. 13

This diagram illustrates the method in inserting the Mizpah Pessary. After it passes the introitus in the vertical position as illustrated, it is turned so that the cup or concavity is toward the patient. It is then pushed downward and backward into the posterior cul de sac. When the concavity is opposite the cervix it is pushed into position as illustrated in this diagram. This cap does not usually obstruct the vagina as might appear. The soft cap permits the penis to pass without interference into the posterior cul de sac.

desired, the pessary is lubricated and grasped in the right hand so that it is in a horizontal position. It may also be squeezed in this position to lessen its bulk. After it has been inserted past the sphincter muscle, it is turned so that the large open end is facing the patient. In this position it is pushed along the pelvic floor until opposite the cervix, usually as far as it will go into the posterior cul de sac. The next step is to push it into position on the cervix. The patient herself should be taught to apply it when needed, and should be instructed to remove it not more than twelve hours later. The complete technique of fitting the patient is the same as that given for the French pessary.

This make is moderate in price, its soft cap can be renewed separately when needed and it is readily available, being on sale in most drug stores and surgical supply houses.

The disadvantages of this method are the same as those of the French pessary, except in place of the fourth disadvantage named there, may be substituted the observation that in a few cases husbands complain that this type is bulky.

Advantage

Often when the vagina is relaxed there may be cystocele, rectocele, and prolapse of the uterus existing singly or in combination. These conditions are frequently unsuited to the diaphragm. If in these cases the cervix is not too badly deformed, the Mizpah pessary may be used with fairly good results.

THE PRO-RACE PESSARY

This pessary was designed by Marie Stopes, Ph.D., of London, England, and is used in her clinic there. It is a

modification of the French pessary. The rim is the same as in the French pessary but the dome is higher, which is undoubtedly an improvement. This dome is made of the same rubber as the rim which is red in color. The principle also is the same as that of the French pessary; that is, it is a cervical cap. Dr. Stopes recommends the use of a soluble quinine suppository in connection with this pessary. The technique and instructions to the patient given

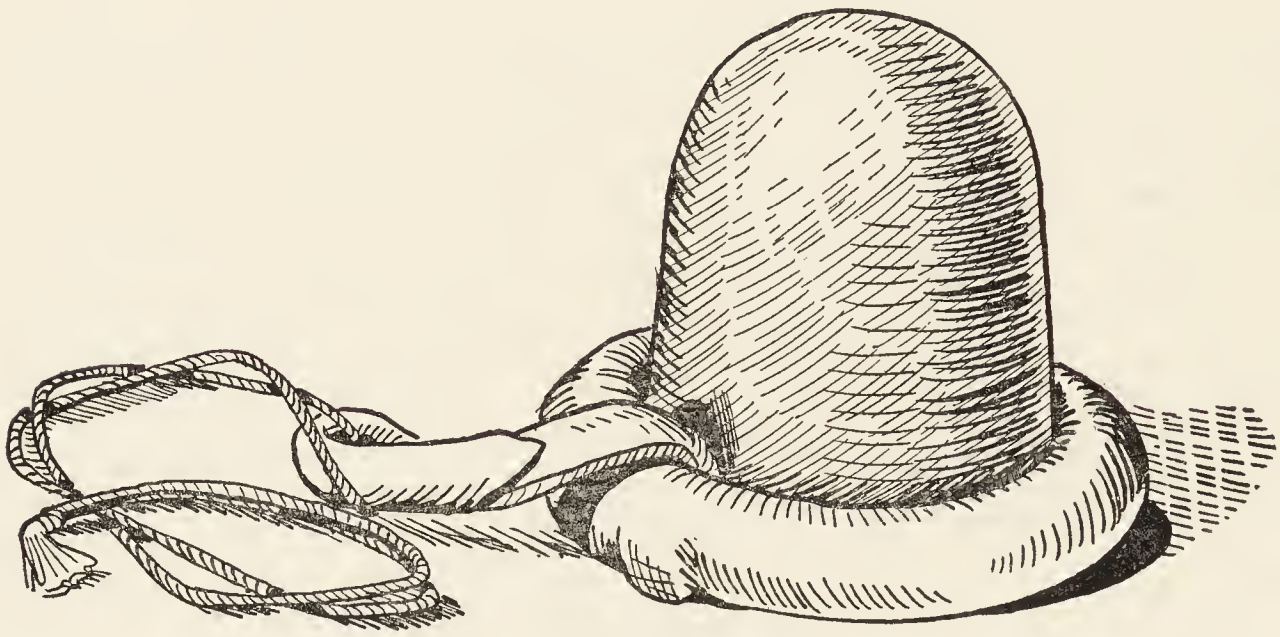


FIG. 14

Pro-race Pessary—Cervical cap. The rubber tab for the attachment of a string to facilitate removal is optional. Some pessaries are made with it and some without.

under the heading of French pessary may also apply here. So far as known there are no statistics showing regular follow-up work of cases at the end of a year or more. Those patients who have been fitted in Dr. Stopes' clinic with this Pro-race pessary and who have not returned to the clinic for re-examination and check-up have been presumed to be successful. Such an inference is obviously fallacious.

In our Clinical Research Department, experience has shown that some patients who did not return to the clinic,

but were later investigated by a home visitor, were by no means either satisfied or successful. However, Marie Stopes has reported good results from the use of this pessary. Since the fitting was done by trained workers and since the cases were selected, the report of "good results" [1] is undoubtedly true, but exactly what is meant by "good results" is not clear. We have had no experience with them in the Research Department.

THE METAL CAP PESSARY

On the continent of Europe, a favorite pessary is a thin metal cap of silver alloy called the Metal-Schutzkappe

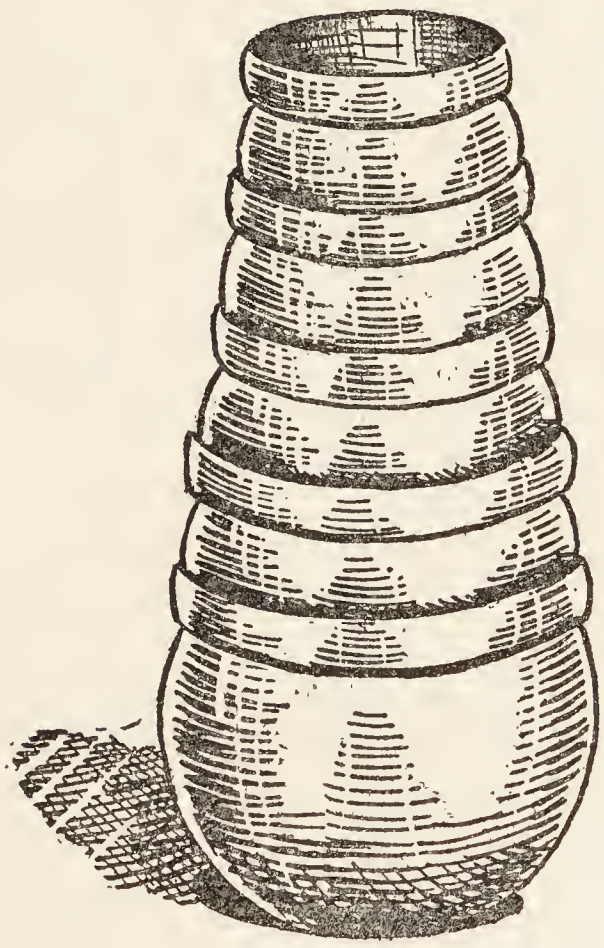


FIG. 15

Metal Cervical Caps—Various sizes.

which is made in a variety of sizes. Normal cervices (that is, firm, non-lacerated, non-enlarged and of even contour

[1] ***The First Five Thousand.*** **Marie Stopes.**

without pathological secretion) are adapted to the use of the metal cap. The physician makes examination in the gynecological position with a speculum. After he chooses a snug fit, the cap is pressed on the cervix and left in position until the onset of the menses. It is then removed by the woman. Immediately after the period, she returns to the doctor for replacement. Thus this device is left in position about a month at a time in those cases where it is considered suitable. It is recommended that a douche be taken following each intercourse.

This[1] is a favorite method in Vienna. Similarly shaped caps have been made of other material such as celluloid and aluminum, but silver alloy is recommended. It is recognized that cervical anatomy or pathology may make it impossible to use this method. It has been the observation of the author that any constricting cap on the cervix may cause nausea. The principle to follow in using cervical caps is to prescribe the smallest which will permit its rim to fit into the fornix. These pessaries are used but little in America.

RUBBER DIAPHRAGMS

Besides the cervical caps already discussed there is another class of pessaries which are used to cover the os and thus protect it against insemination. These are known as diaphragm pessaries because instead of fitting snugly on the cervix, they extend diagonally across the vault of the vagina dividing it into two sections. The upper section containing the os uteri in this case is entirely separated from the lower section into which ejaculation takes place.

[1] *Birth Control,* by Johann Ferch, with Introduction by Maud Royden, p. 66.

MENSINGA

The Mensinga is the original of this type, and is fully described and illustrated in Chapter VIII.

RAMSES

The Ramses is a modifiction of the Mensinga, and is likewise described and illustrated in Chapter VIII.

PROTEX CUP

The Protex Cup is another modification and combines features of both of the above-mentioned pessaries. A description of the Protex Cup will be found in Chapter XIV, in the report of the Los Angeles Mothers Clinic where it has been most extensively used.

DUMAS PESSARY

The Dumas pessary is a diaphragm, but is very different from those just mentioned. It is made of one piece of solid rubber concavo-convex in shape and maintains this shape because of its own thickness and firmness, whereas the others just mentioned are of thin soft rubber and maintain their shape because of a wire spring in the rim. The Dumas is made in three sizes, small, medium and large. These are about 55, 65 and 75 mm. in diameter, and are bulky and heavy. No clinical tests have been made in our Research Department with this pessary. The author has observed its use in a few cases and has not found it as satisfactory as the other diaphragms.

There are some other pessaries in this diaphragm group, but their differences are not sufficient to require special explanation. Some are made with an irregular outline in the rim so as to fit irregularities in anatomical contour due to relaxed vaginal and pronounced cervical displacements. The Matrisalus is such a pessary. Irregularly shaped pessaries, however, will be seldom used by the general practitioner, because of the comparatively few cases to which they are especially adapted.

SPONGES AND TAMPONS

All sorts of materials have been used to form vaginal plugs. Reports have been received of native tribes using leaves of certain shrubs. One tribe of American Indians have been reported by a missionary as using a certain soft clay. In these instances some medicinal quality was attributed to the materials used. It is likely, however, that whatever value they possessed was owing to a mechanical obstruction of the os uteri, rather than to any chemical action. Paper has been used in Japan and balls of silk in France to cover the os.

Tampons have been used for this purpose composed of cotton, silk, wool, jute, etc. These are usually made as required from raw material. When cotton is used it should be raw and non-absorbent. A piece the size of a small egg is taken. A string is tied tightly around it at the middle, the ends of which are left about ten inches long so as to facilitate withdrawal. When ready for use, the tampon is smeared with medicated mineral oil, boric or other mild acid ointment, or one of the medicated glycerites such as is

used in gynecological practices. This facilitates its entrance into the vagina and acts as a spermatocide. The patient is instructed to medicate the tampon and insert it into the vagina while in the lithotomy position, pushing it downward and backward as far as possible toward the posterior cul de sac. The object is to form a mass in front of the

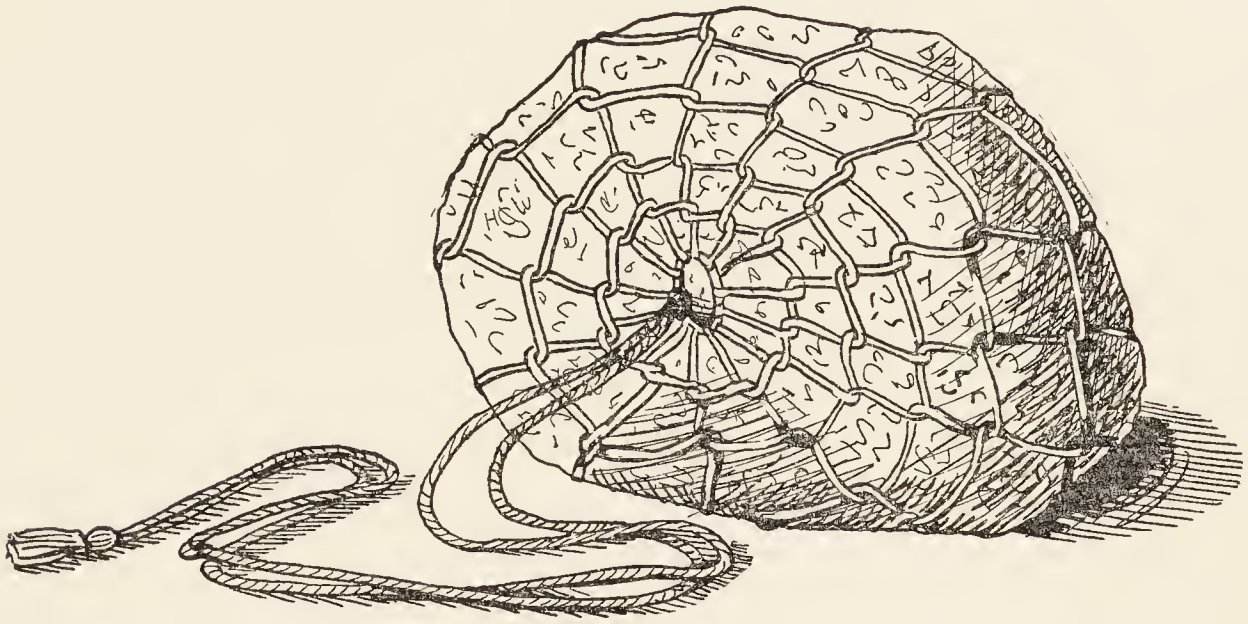


FIG. 16

Sponge in silk net with string to facilitate withdrawal.

os uteri which by its combined mechanical and chemical effects will prevent insemination.

In order to simplify the above procedure, various sponges have been used. A sponge of fine texture and the proper size has been in use for a long time which can be bought at surgical supply houses and in many drug stores. They are often called "silk sponges" and are contained in a silk mesh-bag with strings attached. These sponges can be used over and over again for long periods. The cost of this method, therefore, is very low.

In recent years, the red rubber sponges have come into use. A large sponge of this type is purchased and cut up into convenient sizes with scissors. Strings are not usually used with rubber sponges, which have been prepared in a variety of sizes and shapes. A favorite is a disc of from two to two and a half inches in diameter and about one inch thick. A hollow cup may be cut into one side into which the cervix may fit. The advantage of the rubber over the marine sponge is its relative cheapness and the fact that it can be boiled and thus kept clean.

Sponges are preferable to tampons because they are relatively cheap, and because they can be more easily placed in position. Moreover, it is not so necessary to medicate them with oily or mucilaginous substances. They may be saturated with a watery solution such as vinegar, boric acid, etc. The technique of placing sponges is the same as that already described for tampons. When tampons or sponges are used, they should be left in position several hours or until the next morning. They should then be removed and the *double douche* used.

Advantages

Simplicity
Availability
Cheapness

Disadvantages

If the cervix is sufficiently posterior, so that the sponge or tampon will not be crowded into the posterior cul de sac during coitus in such a way as to expose the os at the time of ejaculation, either the sponge or the tampon may be used. Otherwise their use is not advisable.

STEM PESSARIES

In addition to the several kinds of cervical cap pessaries, there are also various types of stem pessaries which fall into two natural groups, intra-cervical and intra-uterine.

INTRA-CERVICAL PESSARIES

The first group includes those which extend into the cervical canal only. This is the so-called button or collar-button type. They are made of gold, silver, aluminum and hard rubber and can be obtained in various lengths and thicknesses. The stem is usually about two cm. in length and is rounded to fit the lumen of the cervical canal which it is supposed to obstruct entirely. The base or expanded portion is thus held over the os which it is supposed to close

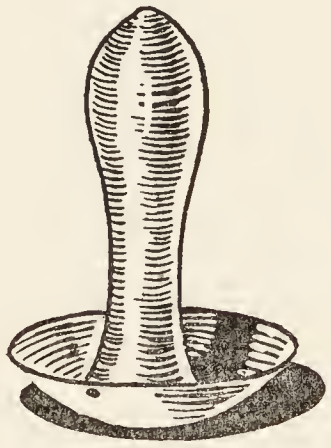


FIG. 17

Intra-cervical Stem Pessary.

effectively. These pessaries can be used only where there is a small os, an unlacerated cervix and a good muscle tone. It is inserted after each menstrual period by a physician through a speculum with a special applicator and is removed just before the onset of the next period, if possible by the patient.

Disadvantages

It leads to infections and irritations.
It is exceedingly difficult to adjust except by a physician.
It is likely to slip out of position unless the cervix is in every way normal.
It does not entirely occlude the cervical canal, so that pregnancy may take place.

INTRA-UTERINE PESSARIES

Another example of stem pessary is the intra-uterine, which, as the name implies, extends into the uterine cavity.

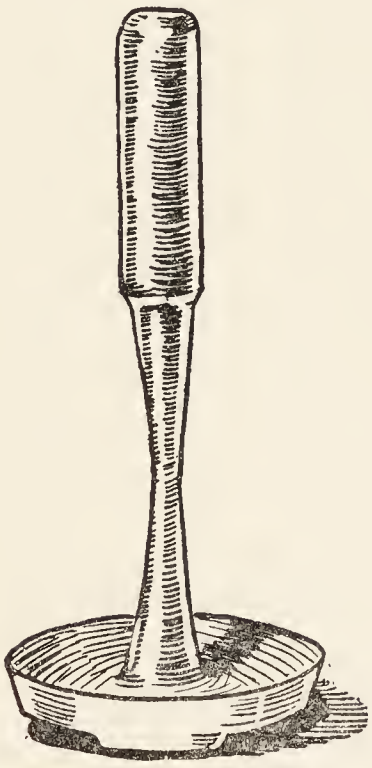


FIG. 18

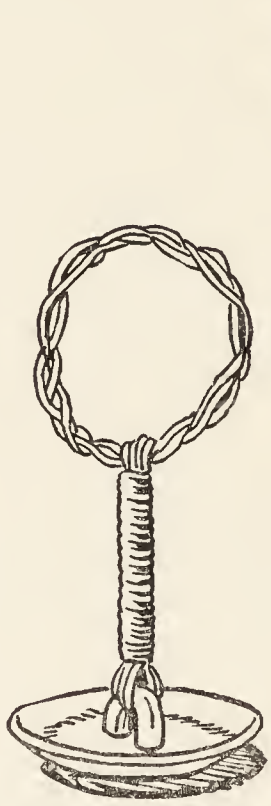


FIG. 19

FIG. 20

Three Types of Intra-uterine Stem Pessaries.

The simplest one is one with a disc which fits over the cervix and supports a stem about two inches long. The upper section of the stem has an expanded portion which

is two or three times the diameter of the lower part. This expanded portion fits into the uterine cavity and is supposed to keep the pessary from slipping out of position.

The Pust type is made of glass and catgut. The glass section forms a kind of cervical cap similar to the one in the pessary just described. Attached to this is a stem of twisted catgut which fits the cervical canal, and above this is a ring made of several strands of catgut which, when expanded in the uterine cavity, holds the device in place. The intra-uterine type best known in this country is the "Ideal," which is also called the brooch, butterfly, wish-bone, etc. It is usually made of gold, consisting of a disc which is supposed to cover the os uteri. This disc supports a stem which extends through the cervical canal. The upper or intra-uterine portion consists of two arms extending out in a V-shape from the cervical stem. These arms are very flexible so they can easily be squeezed together and then inclosed in a gelatine capsule to facilitate entrance into the uterine cavity. When the capsule melts, these arms extend laterally to the uterine walls and retain the pessary in place. These intra-uterine pessaries are usually inserted through a speculum by a physician. They are left in place from one to several months. They are then removed by the physician, and after a rest period they are reinserted.

The great appeal of this method is that there is nothing for the patient to do or to think about, except that there is a pessary there which must be removed by the physician at the time agreed upon.

Dr. Mary Halton,[1] formerly of Gouverneur Hospital,

[1] First American Birth Control Conference, Hotel Plaza, New York, November 11, 1921. *Contraceptive Session Proceedings.*

New York, reported 720 cases with no bad results. She advised removal at least every two months, otherwise pregnancy or other undesirable results may occur.

Disadvantages

The American Birth Control League's clinical records show that among the cases reporting the use of this type of pessary many had become pregnant. Similar reports come from other observers. So that in our experience these pessaries are unreliable.

British experience, as reported in the *London Practitioner's Special Number on Contraception*, July, 1923, indicates numerous infections, some leading to operations. Some deaths were reported. American experience, as reported by the Committee on Maternal Health of New York and the American Birth Control League, is very similiar. Infections and early abortions were evident in many clinical cases. From a health viewpoint this type of pessary is therefore undesirable.

TEMPORARY STERILIZATION OF WOMEN BY OPERATION

This has been studied by Naujoks[1] with a directness, thoroughness and sanity that calls for quotation and grateful comment. Indications are briefly considered. A half page, more or less, is given to each of the twenty-four operations on tubes, ovaries or uterus; then, an expert himself, Naujoks analyzes the results with irradiation, and finally a careful comparison and evaluation is presented. The operations involve skill and risk, whether abdomen or

[1] Naujoks, H. (Koenigsberg). *Das Problem der temporaeren Sterilization der Frau.* Enke, Stuttgart, 1925; pp. 83, full literature, no illustrations.

vagina be opened and are usually on patients who are relatively poor operative risks. While sidetracking fertilization, the internal excretory function of the female sex organs is left intact and no menopause disturbances result. On the other hand, to restore function, a second surgical attack is called for. Few surgeons promise this result. Hardly any patient has called for such restoration. The failures are due to reopening the tube with simple ligation or ligation and exsection; to opening up where tube or ovary is buried beneath peritoneum or broad ligament; and to some painful after-effects.

The failures in sterilizing operation on the tubes have been exhaustively studied by Nuernberger in a monograph with this title, *Sammlung Klinischer Vortraege* (gynaekologies 258/61. Leipzig, 1917), and by Kalliwoda (Archiv. für Gyn. *113*.565, 1920). Simple ligation shows nineteen per cent failures, or one in five; with ligature and section the failures are over six per cent, even in expert hands; while burial of tubes, and even the wedge-shaped exsection of the cornu has a nearly equal tale of subsequent pregnancies. Nuernberger lists eleven in the latter group. Vaginal exsection is abandoned because of danger of hemorrhage, at least after abortions.

CHAPTER IV

Temporary Methods Continued—Chemicals

PRIOR to the discussion in this chapter of the specific action of spermatocides and chemical formulæ, there are first set forth the principles of applying chemical contraceptives which are common to all methods, such as the time for applying medicines and the cases best suited for treatment by chemical measures. Then follows for convenient reference the Composition of Semen and the effects of acids on it. The way is thus prepared for the detailed discussion of the several chemical methods in common use, including powders, tablets, suppositories, jellies, a combination of methods and, in a separate chapter, the douche.

Principles Common to All Chemical Contraception

From time immemorial there has been an uncanny belief in the magic of medicines. In no sphere is the belief in the efficacy of drugs greater than in the field of contraception. It would be impossible to enumerate all the drugs which have been used at one time or another. They include most of the acids, astringents, antiseptics and many of the alkaloids and others. The belief in the value of drugs is based on the theory that if the right medicine is in the vagina when ejaculation takes place all the sperms will be killed off. The problem is regarded as being as

simple as mixing medicines and spermatozoa in a test tube.

A perusal of the sections in Chapter II devoted to the conditions under which pregnancy takes place and to the mechanical and chemical factors involved in contraception, will enable the reader to realize how fallacious is this reasoning. No matter how potent a drug may be in its action on the male sperm, unless the os uteri can in some way be protected during ejaculation so that direct insemination will not occur, the drug will not have opportunity to exert its influence.

TIME OF APPLYING MEDICINES

During coitus the vaginal walls become distended and the folds smoothed out. After the act, these folds again assume their normal condition and thousands of sperms may become enmeshed. In the absence of a spermatocide these may live long enough to finally gain the cervical canal. Therefore, to get the best results from chemicals, they should be applied before the act, thus insuring a thorough distribution and inclusion in the folds later. A medicated douche may fail because of direct ejaculation into the os uteri, or because it does not reach these pocketed sperms—THE DOUCHE IS TOO LATE.

THE TIME OF CONTACT

When a chemical contraceptive such as a suppository, effervescent tablet, jelly, etc., is chosen, *it should be left in contact long enough to kill all the sperms before douching.* If these are applied before coitus and a douche is taken immediately they do very little good. The sperms will still be alive at the time of douching and as it is im-

possible to remove all the millions of sperms, many will inevitably be left behind after the douche has been taken. Most of the chemical contraceptive will have been washed out and there is then the possibility of some of these sperms gaining the cervical canal.

Clinical experience has proved that better results are obtained when the chemical is allowed to remain in contact with the semen several hours before douching. As coitus takes place in most cases at night it is our invariable rule to instruct patients not to take douches until the next morning. *This is important.* As the tendency is to douche immediately this matter should always be explained. It is easily understood when we realize that the vagina is a potential tube and not an actual one; that is, when in repose its anterior and posterior walls are in apposition. This coming together of the walls after coitus will bring the semen and chemicals into intimate contact. If the chemicals are of the proper kind, amount, and consistency, the chance of killing all sperms by prolonged contact under such circumstances is far greater than the possibility of complete mechanical removal by a douche.

Cases Best Suited for Treatment by Chemical Measures

1. A firm cervix without laceration and a small os. The smaller the os the easier it is to protect it by smears of jelly, antiseptic foam, grease, gums, etc.
2. Good tone in the vaginal tissues with an intact perineum will cause the vagina to contract well after withdrawal, thus bringing sperms and chemicals into a more intimate relation than would be the case with greater relaxation.

3. A short cervix is more readily accessible to all medicines than one which is longer, especially if the cervix be very short and "stubby."
4. A cervix which is displaced posteriorly is likely to have the os pointing to the posterior cul de sac and thus is not exposed to direct insemination. This type is a very good risk for chemicals.
5. A cervix which is displaced markedly to either side is a good risk for the same reason, namely, direct insemination is less likely to take place.
6. The long-pointed cervix, "infantile type," is also a good risk, perhaps partly because it belongs to a person of low fertility, but also because during ejaculation there is likely to be an "overshot" ejaculation taking place beyond it, so that any medication could have an opportunity to exert its value before the sperms could gain the os.
7. The best form in which to administer a chemical contraceptive in the opinion of the author is that of a jelly. Other forms are powders, tablets, effervescing tablets, suppositories, etc. Various formulæ will be found under these several headings.

CHEMISTRY OF SEMEN

A brief outline is given here of the chemistry of the semen in the hope that it may be of some assistance to physicians who may wish to work out their own formulæ. Attention is called to the *sound basis for the use of acids as contraceptives* as revealed in a study of the following outline.

COMPOSITION OF SEMEN

I. *Spermatozoa*

Nuclein or *nucleic acid* (main constituent)
Proteids—Protamines
Lecithins—Cholesterin—Fats
Sod. and potass. chloride—Sulphates—Phosphates.

II. *Prostatic Secretion*

1.5 per cent Solids—Alkaline—Proteids—Salts

III. *Secretion from the Seminal vesicles*

Albuminates (abundant)
Fibrinogen (enables fluid to clot after its reception in female organs preventing loss of spermatozoa. In rats, removal of the seminal vesicles and prostate gland prevents fertilization of ova)
Coagulation is caused by a special *fibrin ferment* (specific) found in the prostate gland.

IV. *Cowper's Glands*

Secrete a mucous fluid of no importance.

PRINCIPAL CONSTITUENTS OF SEMEN

(*a*) *Nuclein* (nucleic acid)

Resembles *globulin* in its reaction.

(*b*) *Globulin*

Insoluble in water
Soluble in diluted NaCl or very diluted *Acetic Acid*
Readily precipitated by saturating with NaCl or $MgSO_4$

(*c*) *Proteids*

Coagulate when heated to 73° C. (163.4° Fahr.)

(*d*) *Fibrinogen*

Coagulates at 56° to 60° C.
Is readily soluble in weak acids and alkalis
Fibrinogen + NaCl + $CaSO_4$ + Fibrin ferment causes a rich formation of

(*e*) *Fibrin*

Insoluble in water, insoluble in acids and alkalis
Precipitated in tartaric and acetic acid

EFFECTS OF ACIDS ON SEMEN

Acetic Acid

(dilute) + heat (73° C.) precipitates proteids

Tannic Acid

+ acetic acid solution will precipitate proteids

Tartaric Acid

+ *acetic acid dil*

Will coagulate albumen and precipitate *Fibrinogen*

Malic Acid

Attracts spermatozoa, producing agglutination, so preventing motility.

Pfeffer: Fertilization of ferns { Attraction of male and female germ cells being a chemical one.

CHEMICAL REACTIONS OF SEMEN

Nucleic acid

Spermatozoa — Proteids, Lecithins, Salts — Insoluble in water; Coagulated by *Heat* (73°C.) 163.4°F.

Semen

Prostatic Secretion (Proteids) — *Heat*
Fibrin ferment — Ppt. by tartaric and acetic acid

Secr. from Seminal Vesicles (*Albuminates and Fibrinogen*) Soluble in weak acid — Coagulates at 56° to 60° C.

FORMULÆ BASED ON THE CHEMISTRY OF SEMEN

Formula I

Hot Water (75° C.) + Tartaric Acid + Acetic Acid + *Malic* Acid.

Will coagulate the constituents of the semen;
Will precipitate proteids;
Will agglutinate the spermatozoa;
Will prevent their motility.

Formula II

Malic Acid
Lactic Acid
Thymol iodide
Calcium sulphate
} Hydroscopic powder

Formula III

Malic Acid Tannic Acid Acetic Acid Alboline Soap powder	For spray—gives cervix acid reaction

POWDERS

Contraceptive powders consist of starch or gum arabic combined with boric acid, alum, zinc, quinine, or other astringents, antiseptics or spermatocides. They are applied

FIG. 21

Powder blower with adjustable sleeve.

with a specially designed atomizer which is equipped with a thick collar to facilitate its entrance into the vagina. The object is to spray the cervix thoroughly with the powder to form a spermatocidal gum or paste. Typical formulæ are:

1. Lactic acid, 2%
   Quinine bisulph., 20%
   Boric acid, 78%
2. Boric acid powder, gr. 75
   Tannic acid powder, gr. 35
   Gum arabic, gr. 150
   Starch, oz. 1
   (Sufficient for thirty applications)

These powders are used five or ten minutes before coitus.

Disadvantages

Because of anatomical irregularities and the degree of precision required in applying the powder, it is not always deposited on the right spot. When these powders are deposited in the vagina they form a pasty mass where they are deposited. If the application happens to be a fortunate one, i.e., over the os uteri, it will serve very well; if not, the medication will not be distributed in the vagina as thoroughly as some other forms of medication. It is therefore not a recommended method.

EFFERVESCENT TABLETS

Effervescent tablets, sometimes called vaginal pastilles, become active when dissolved, giving off a gas which forms a thick creamy foam. This foam impedes the progress of the sperm and finally kills it with the chemicals it carries, usually chinosol or boric acid. Several kinds of these tablets, in sizes from five to fifteen gr. each, are obtainable, one containing:

Tartaric acid
Soda bicarbonate
Chinosol

Another contains:

Soda perborate
Chinosol

Soda perborate effervesces in moisture in the presence of an organic compound. About thirty-five c.c. of gas is given off and remains in the vaginal vault.

The manufacture of satisfactory tablets is difficult, for they are extremely hygroscopic. The atmospheric condi-

tions must be just right. If the tablets are too friable, they will not properly stand transportation and handling; if too hard, they will not effervesce.

When one of these tablets is put in a test tube containing about four c.c. of water, a vigorous reaction takes place, producing the characteristic foam. If this occurred in the vagina in every case, the gas would penetrate all the vaginal folds and enter the cervical canal and deposit the antiseptic foam there; but in reality this does not always happen. The vaginal secretions of many women are very scanty, especially if libido is not present. Even when there is a fair amount it is in the form of mucus, and the moisture present contains so many organic compounds that the same reaction noted in the test tube with pure water does not always take place. This is proved by the fact that the tablet, or part of it, is often washed out by a douche several hours after insertion. In many cases, however, the tablets seem to work well and give good results. Such cases, evidently, are those with plenty of vaginal moisture. Use of the tablets should be confined to women of this class.

TECHNIQUE

They should be inserted by the woman immediately before intercourse.

INDICATIONS

Where mechanical measures are employed, such as the use of the condom or pessary or where coitus interruptus is adopted, it is frequently considered desirable to supplement these measures by a chemical method which will increase the margin of safety.

Conditions governing their employment are the same as for contraceptive jellies or suppositories.

Advantages

The tablet form is convenient. (1 dozen tablets are supplied in a glass tube)
If kept dry they do not usually deteriorate.

Disadvantages

1. Tablets cannot be effectively used unless the vaginal secretions are free. Variations among different women in this respect and variation in the freedom of secretion in the same woman at different times sometimes render dependence on tablets unsatisfactory.
2. As a contraceptive measure the tablet is probably as effective as a jelly providing the secretions are free, but it lacks the lubricating quality of the latter which is a desirable feature.
3. It is somewhat more expensive than jelly.

SUPPOSITORIES

Suppositories have been used in some form or other quite universally for contraceptive purposes. In England they are sometimes referred to as soluble pessaries, which is obviously a misnomer. Many of the large wholesale drug firms manufacture a suppository containing drugs to be used in the treatment of vaginal conditions. Since many of the vaginal ailments are due to infections. most

of these suppositories contain antiseptics, which at the same time are spermatocidal. Such suppositories may be had from almost any druggist. The same dealer will in many instances be able to supply physicians with a suppository which contains one or more of the drugs which are supposed to have some specific action on the male sperm, such as quinine or chinosol (oxysulphate of quinone). In any case, suppositories can always be prepared locally on a physician's prescription.

Suppositories are usually made with a cocoa butter base, or from a combination of glycerine and gelatine. They are of various shapes and usually weigh from twenty to sixty grains each. Each suppository usually contains an acid, an astringent, an antiseptic or a specific spermatocide. Any or all of these may be used in a single formula.

Cocoa butter seems to be the base usually employed. It has a sharp melting point; being quite solid at ordinary temperature, it melts very readily at body temperature. When fresh, five to ten minutes should be allowed for melting in the vagina. A typical formula for one suppository is:

Boric acid, 10 gr.
Salicylic acid, ¼ gr.
Quinine bisulphate, 3 gr.
Cocoa butter, 50 gr.

Another formula is:

Chinosol, ⅛ gr.
Salicylic acid, ¼ gr.
Quinine bisulphate, 3 gr.
Cocoa butter, 50 gr.

(NOTE: Salicylic acid and quinine bisulphate are insoluble so that care must be taken to have an even mechanical suspension.)

The following formula is highly recommended in France:

Cocoa butter, 15 gr.
Trioxymethylene powder, 1½ gr.

To make one suppository, melt cocoa butter in a water-bath, mix the dry ingredients and stir in well.

The greasy character and unpleasant odor of these suppositories make them undesirable to many persons. These qualities are minimized but not entirely overcome by using C. P. cocoa butter. It is difficult to keep suppositories in summer, since they melt at body temperature.

Suppositories have been devised, however, that do away with these objectionable features. Of this kind a typical formula is:

Gelatine, 100 grams
Water, 100 c.c.
Glycerine, 100 grams
Quinine hydrochloride, 10 grams

Soak the gelatine in water, add the glycerine and place in a water bath, then stir in the quinine hydrochloride. Leave in water bath until entire mass weighs 200 grams; then pour in molds so that each suppository shall contain one drachm. The melting-point of this composition is not as sharply defined as that of cocoa butter, and the process of melting is slower. Mould often grows on these suppositories if exposed and they tend to harden and dry out with age. As they also have other disadvantages which, in sum, outweigh those that are made of cocoa butter, they have not entirely displaced the latter.

The chief contraceptive value of suppositories is in the oily film they spread over the os uteri. This tends to produce a mechanical barrier. The chemicals act in an auxiliary capacity, killing sperms more quickly than they would ordinarily be disposed of and thus lessening the period of exposure. It is, therefore, unnecessary to use large quantities of strong drugs, for mild acids or astringents are sufficient.

TECHNIQUE

The patient, lying on her back with the knees drawn up, will insert one suppository, pushing it as far back into the vagina as possible. This should be done about ten minutes before coitus. A cleansing douche may be taken some time later, or deferred until the next morning which is preferable.

COMMENT

Data from our Clinical Research Department show that thirty-three per cent of those who use suppositories meet with failure. It should be remembered, however, that most of those women employing this method have come to the clinic because of their lack of success. We have no means of estimating the degree of success achieved by others. We have not studied them experimentally to any extent.

Unless ejaculation directly into the canal occurs, the oily film on the os uteri will afford some protection. It follows then, that brides and young women with firm tissues and a small os are the best risks for this method. Old multiparæ with enlarged or lacerated cervices and relaxed tissues should not trust too implicitly in it.

The principal objection to suppositories made by their users is the messy condition resulting to clothing and bed linen, especially if cocoa butter is the base. There is nearly always some leakage. The male organ is smeared with the grease, which being oily does not dry. To lessen leakage, the size of the suppository has been reduced, and attar of roses has been added to disguise the cocoa butter's disagreeable odor. It is inadvisable, however, to make the suppository of less than forty grains.

Where the gelatine and glycerine combination is used, the unpleasant after-effects are largely avoided, but the suppositories tend to harden and unless they are fresh they cannot be relied upon to melt. They have been washed out with a douche, even as late as the following morning.

INDICATIONS

1. Tense muscles or a sensitive vagina where the use of mechanical appliances is inadvisable, as in newly married women.
2. To supplement other methods, such as "withdrawal" or the use of the condom.

Advantages

Convenience.

The fact that no technique is required.

Disadvantages

Relatively high percentage of failures, sometimes due to the fact that suppositories do not always melt and that their operation is therefore uncertain.

Besides there is the fact that they do not protect the cervix from a direct ejaculation except by a thin oily film.

Some patients object to the "greasy mess" of the melted suppository.

(NOTE: See the earlier section in this Chapter commenting on the cases best suited for treatment by chemical measures.)

CONTRACEPTIVE JELLIES

In recent years jellies are tending in a large measure to displace other forms of chemical contraception.

Most jellies consist of a mucilaginous base such as agar, gelatine, Irish moss, tragacanth, glycerite of starch, or a combination of these, and some acid, astringent, antiseptic or spermatocide.

Three popular brands are made up as follows:

Glycerine, Starch } as glycerite of starch
Boric acid
Acetic acid

Glycerine, Starch } as glycerite of starch
Boric acid
Chinosol

Glycerine
Tragacanth
Boric acid
Chinosol

The experience in our Clinical Research Department tends to show that the consistency of a jelly is as important

as is the formula, provided that the product contains an acid and a spermatocide. Several jellies were used in a series of experiments, each having a different base and a different combination of contraceptive drugs. The clinical results were practically the same and were better than results reported from suppositories. The reason for this is perhaps that no matter where the jelly may be deposited in the vagina, during coitus it is smeared all over the vagina and os uteri where it adheres as a thick smear. When this is smeared over the os, it is likely to form a mucilaginous plug, thus adding mechanical obstruction to spermatocidal action.

GLYCERITE OF STARCH

Glycerite of starch has many qualities to recommend it as a preferred base for carrying chemicals. It can be made of any consistency and stands up well. When used alone it is a good spermatocide, killing sperms on contact. It is a depletant and thus aids in detumescence after coitus. More than half of all of our patients have some form of pelvic disturbance, and this depleting action of glycerine seems to help many of these disturbances. In some few cases, patients complain that this depleting action is too decided and causes a considerable amount of "watery discharge" for a few hours after its use. Occasionally a person is found who is sensitive to the action of glycerine and complains of a smarting sensation. These objections are readily overcome when the patient is placed upon a formula containing one-third glycerine in the base and two-thirds gum tragacanth. It is, therefore, desirable to have more than one formula available. Several formulæ are now on the market under various trade names.

QUININE

Since the beginning of modern chemical contraception, quinine has always had a place. The action of quinine as a plasmacide is well known. In a series of tests made by the author, many forms of protozoa such as amœba, vorticellum, paramecium, male sperms, and others were affected very adversely by dilute solutions of quinine. There is almost universal confidence in its usefulness in this field, and it forms a part of a great many prescriptions for local use in the form of douches, powders, tablets, suppositories and jellies.

It should be realized that some people are especially sensitive to quinine, and that it may be absorbed from the vagina in susceptible individuals in sufficient quantities to produce marked constitutional symptoms.[1]

CHINOSOL

For the reason that chinosol is claimed to be a venereal prophylactic (a solution of 1–4,000 proving fatal to the gonococcus in one minute), and because it is supposed to be a comparatively non-irritating antiseptic, it is used as the active ingredient of many contraceptives, such as jellies, suppositories and powders. There is no experimental evidence, however, to show that it is superior to any other mild antiseptic or mild acid as a spermatocide. Several cases of vaginitis due to its use have come under observation in our clinic. According to the report of the Council of Pharmacy and Chemistry of the American Medical Asso-

[1] *Absorption of Drugs and Poisons through the Vagina.* Journal of Pharmacology and Experimental Therapy 10: 507 (January) 1918.

ciation, chinosol is superior to carbolic acid as an antiseptic, but is inferior to it or to bichloride of mercury as a germicide.

LACTIC ACID JELLY

The jelly mostly used by our Clinical Research Department at the present time contains lactic acid and is called by us Lactic Acid Jelly. The formula is:

Glycerine } as glycerite of starch
Starch }
Boric acid, 4%
Lactic acid, 1%

As stated, the contraceptive value of a jelly depends principally on its mechanical properties. The jelly made from this formula has more body than melted cocoa butter and is more tenacious. It would appear to offer more security than suppositories, and the experience of our clinic bears out this reasoning. *In selected cases*, it has proved about eighty-seven per cent successful; but as the experiment covered only two hundred cases over a period of from two to twelve months, it can hardly be called conclusive. The cases best suited for treatment with chemicals will be found described in an earlier section of this Chapter.

For ease of application, this jelly is supplied in a collapsible metal tube to which may be attached a glass tube similar to a douche nozzle, and which is supplied with the jelly. A key at the bottom of the tube is twisted until the glass is filled. One turn of the key then delivers three to four c.c. of the jelly, which is the amount required for each application. The glass nozzle may be left in place

on the tube and washed after being used. A rubber cap or cork protects the end when not in use and keeps the jelly soft within the nozzle.

TECHNIQUE

The woman, lying flat on her back with the knees drawn up and spread apart, inserts the nozzle downward and backward about two and one-half inches, which is as far as it will go with ease. The key is then turned around, thus depositing the right amount of jelly in the vagina near the cervix. This may be done five to ten minutes or even immediately before coitus. During the act the jelly is distributed over the cervix and upper vagina as a thick smear. A cleansing douche may be taken several hours afterward or deferred until the next morning. *Experience, in fact, shows that the best results are obtained if douching is deferred for from two to twelve hours after coitus, or until the next morning.*

INDICATIONS

Same as for the suppository.

The use of the condom and pessary calls for a lubricant. The jelly is most desirable for this purpose because it meets this requirement and is also spermatocidal.

(NOTE: See the section in this Chapter entitled "Cases Best Suited for Treatment by Chemical Measures.")

Advantages Over the Suppository

1. Can be applied as easily.
2. Keeps well.
3. No odor.

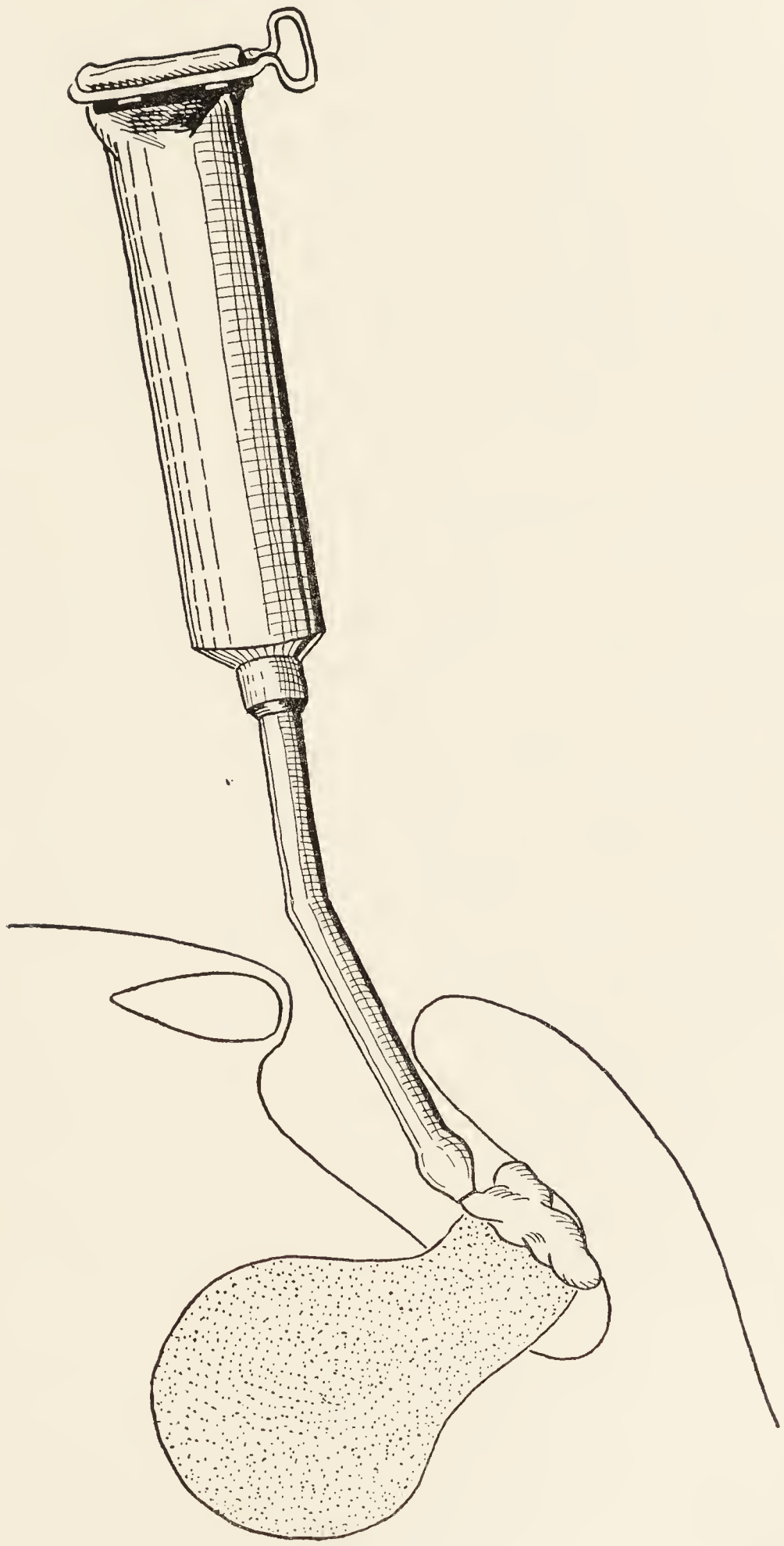


FIG. 22

Diagram illustrating method of applying contraceptive jelly.

4. Cleaner to use. Does not soil clothing.
5. No waiting is required after applying.
6. Clinical experience shows it to be the most effective method of applying a chemical contraceptive,—perhaps because it can carry any chemical which may be applied by any other method, and because its stiffer consistency may help it to act mechanically by maintaining a better distribution over the vagina and os uteri.

COMBINATION OF METHODS

In considering both the mechanical and the chemical methods commonly used in contraception, it has been obvious that none of them is alone one hundred per cent perfect under all circumstances. The physician, however, has a sound basis on which to form his estimate of the efficiency of each method, and under what special circumstances any particular method is indicated. For the highest efficiency, it must be clear enough that the mechanical occlusion of the os uteri has proved more desirable than have most chemical measures; but that a *combination of methods* in which the mechanical and chemical are combined, has proved to be more satisfactory than either one alone. In fact, it is a combination of methods which our Clinical Research Department has found to result in a close approach to the ideal contraceptive, as is set forth in Chapter VIII.

If a condom is used and liberally smeared with jelly, it not only facilitates entrance and lessens the possibility of rupture, but, if rupture does occur, it also provides greater protection because of the jelly.

If "withdrawal" is practiced, it is less likely to fail if contraceptive jelly is also used. However, when a condom or "withdrawal" is used, the facilities for taking a warm douche should be at hand in case of accident. If any psychic or physical disturbance occurs from the use of any method, a change in method may help to relieve the situation.

If a pessary is used, and if it is well smeared on both sides with a contraceptive jelly and a little jelly is inserted in the cup of the pessary, its efficiency is greatly increased.

CHAPTER V

Temporary Methods Continued—The Douche

WE have been considering the subject of mechanical and chemical contraceptives, and now come to a method which cannot be classified accurately under either of these headings. This is the Douche, which has considerable vogue. The fundamental idea underlying its use is that it is supposed to remove mechanically all the sperms from the vagina. Universal experience has proved that this does not take place, and it is now the almost unexceptional rule to use some form of antiseptic or spermatocide as a part of the douche. This makes it in reality a combination of methods.

Douching to prevent pregnancy has long been employed throughout the civilized world. It was recommended in the past by leading authorities on contraception, when nothing better was available. Their advocacy of the method was so influential and widespread that even today with greatly improved methods it continues to be, among the laity, the best-known contraceptive measure. More than half of all the patients coming to the Clinical Research Department of the American Birth Control League have used douches of various kinds, usually advised by friends, but sometimes advised even by physicians.

In recent years the women's magazines have been ac-

cepting advertisements with recommendations of various antiseptics as douche medicaments. In some instances this publicity strongly intimates that the particular antiseptic has contraceptive value. Antiseptics are excellent for cleansing purposes, but the best of them are not dependable as contraceptives, in the brief contact afforded by the douche. It is to be feared that such advertising will tend to increase the vogue of the douche.

The Douche, whether plain or medicated, is in the opinion of the author, one of the most unsatisfactory and unreliable contraceptive methods in use, and this view is shared by most present-day specialists. A few, indeed, refuse to regard the Douche as a contraceptive at all, saying that it has value only as a cleanser. Several investigators report that its failures range from twenty-four to ninety per cent.

The wide discrepancy in these figures was due to lack of uniformity in the research conditions; to the class of patients examined; to the length of time the method was used; and to the circumstances under which the statistics were gathered.

Some patients use plain water,—cold, lukewarm or hot; others medicate it with different chemicals of varying strength. Some use bag-syringes and some the hand-bulb syringe. A few take the douche while lying down; the majority, in a sitting position. In certain cases, the douche is taken immediately after coitus; in others, half an hour or so later. Again, some douches are taken by flushing with water under pressure, and others with the water in a gentle, continuous flow.

REASONS FOR FAILURES OF THE DOUCHE

When the uterus is in the normal position without the interposition of a wall or covering, part of the semen may be projected immediately into the cervical canal. However soon the douche is taken, it is possible that the sperms will have become so securely imbedded in the mucus plug in the cervix as to become inaccessible to the douche. Also, during coitus the vaginal walls are in a tonic condition and there is more or less distention. After the female orgasm, or even after withdrawal of the penis without an orgasm on the part of the female, the walls of the vagina relax into their normal folds, often enveloping thousands of sperms which, because of their microscopic size, may escape mechanical efforts at dislodgment or chemical action from the douche, and afterward find their way into the cervical canal.

The essential weakness of a method such as the douche lies in the fact that it must necessarily be applied *too late*. To be effective, any method depending on chemicals must provide for their introduction and distribution *before* intercourse.

Many cases of vaginitis and cervicitis have resulted from the indiscriminate use of chemicals in unreasonable amounts and of too great strength. Such pathology may be expected to follow inevitably the laity's self-prescribed use of drugs whose action they do not understand.

The inconvenience of douching also makes it undesirable. The douche must be taken at a time when the natural inclination is to rest and sleep. Affronting as it does the esthetic sense, it disturbs the important psychic element of coitus.

CHEMICALS OFTEN USED WITH THE DOUCHE

The tendency in douching is to use an insufficient quantity of water and to rely on medicaments for prevention. If it were possible to make douching thorough, there would be no sperms left behind and hence no need for chemicals. But the inescapable fact is that it is not possible to make it one hundred per cent thorough. Many of the sperms being inaccessible, the small quantity of medicated water that remains in the vagina after douching will have little or no effect on them. Therefore here, as in surgery, mechanical cleansing is superior to antiseptics. However, since the douche will have washed away the natural secretions of the vagina which are hostile to the sperms, it is obvious that when the douche is used the vagina should be left in an acid condition which is favorable to contraception. It follows, then, that the proper medicament to use is not a strong antiseptic, but a mild acid, or an astringent which will keep the tissues dry and shrunken, thereby devitalizing the sperms. A list of drugs and chemicals which have been used for this purpose follows:

Vinegar,	4–8 ounces to the quart
Boric acid,	1½ teaspoonfuls to the quart
Salt,	4 tablespoonfuls to the quart
Permanganate of potash,	3 grains to the quart
Citric acid	75 grains to the quart
Tartaric acid,	75 grains to the quart
Zinc sulphate,	100 grains to the quart
Alum,	150 grains to the quart
Chinosol,	4 grains to the quart
Bichloride,	3 grains to the quart
Zonite,	1–2 tablespoonfuls to the quart
Lysol,	½–1 teaspoonful to the quart

These are all old favorites and are still popular. Many large manufacturing druggists stock douche-tablets, made as a rule from some of the above ingredients.

TEMPERATURE OF THE DOUCHE

The use of cold water is to be discouraged; it should be lukewarm or hot. The pelvic organs are congested at the time the douche is taken, and the shock caused by cold water may be followed by undesirable after-effects. Moreover, the hot douche will be more effective on the sperm than cold, for water at 115°–120° F. precipitates and coagulates semen. Plain water, without any medicament, coming in contact with the sperm paralyzes it at once. Many of the sperms, however, may revive after a time under favorable circumstances.

TECHNIQUE OF THE DOUCHE

With a fountain syringe, at least two quarts of water should be used. The height at which the bag is suspended will determine the pressure of the flow. The top of the water in the douche-bag should in no case be more than two feet above the vagina when the douche is being taken. Excessive pressure may drive the fluid through the tubes into the peritoneal cavity. This should also be borne in mind when using hand bulb-syringes. A glass douche-nozzle with a bulb end, which may be purchased at any of the larger drug stores, is superior to the hard rubber nozzles ordinarily supplied and can be kept in a cleaner condition.

The simplicity and convenience of hand bulb-syringes, of which there are many varieties on the market, make an appeal to numbers of women; but they do not hold enough

water for a thorough cleansing. If they are used, those with a large bulb are most desirable; and they can be used twice or more times after each intercourse to insure a better cleansing.

Preferably the woman should lie flat on her back over a douche-pan with the hips elevated. Actually, however, she usually finds this position so inconvenient to adopt that she employs the sitting posture. When the douche bag and nozzle is used, the vulva should be squeezed gently around the nozzle of the douche tube to permit the vagina to fill with the douching fluid and become slightly dilated. Dilation smooths out many of the folds and permits the water to reach every accessible crevice. Then the fingers should be released and the water permitted to gush out. If this is repeated several times the maximum amount of cleansing will be assured. There are on the market nozzles which accomplish the same results as manual manipulation of the vulva. A conical rubber shield on the nozzle occludes the vaginal orifice, contains a device for letting out the water more slowly than it enters, so that a steady flow is maintained through a constantly filled and dilated vagina.

INDICATIONS

Unsuccessful coitus interruptus.
Rupture or slipping of condom.
Intercourse, when no other method is available.
Need for cleansing. After the use of pessaries, jellies or suppositories it is usually advisable to take a douche the following morning.

Advantages

None, of real value as a contraceptive.

Disadvantages

The douche is unreliable for reasons given above.
It disturbs the psychic after-effect of coitus.
It is often very inconvenient.

(NOTE: *It should be kept in mind that reliance is to be placed chiefly on mechanical means, such as the pessary or the condom, to prevent sperms from entering the cervix. Medicated douches are to be considered only as auxiliary measures for killing sperms and thus lessening the time of exposure.*)

CHAPTER VI

Temporary Methods Continued—Miscellaneous

CONSIDERATION has been given to temporary methods of contraception which require a certain amount of apparatus. We are now to consider a small unclassified group of methods which require no apparatus, and which, because of their simplicity, have a universal practice.

Coitus Interruptus

Coitus interruptus, also called "withdrawal" and "taking care," and sometimes referred to as "onanism," is perhaps the oldest known method of contraception. Allusions to it in classical literature are familiar to all. This method, which is entirely under the control of the man, consists in withdrawing the penis from the vagina when his orgasm is imminent, so that ejaculation takes place outside the body into a napkin or some other convenient receptacle. It is obvious that considerable self-control is necessary in the practice of this method. The intelligent man who practices it urges his wife to abandon all restraint so that she may experience the orgasm before he does. Considerate men also learn to delay their own climax until their wives are satisfied, and this, of course, is the most satisfactory way to practice this method. Coitus interruptus is prac-

ticed to some extent all over the world and is particularly popular in England and France. The statistics of our Clinical Research Department indicate that it is likewise widely employed in the United States.

It maintains its popularity despite the fact that it has been condemned by prominent psycho-neurologists, notably those of continental Europe, who attribute to its practice various neurotic and even mental disturbances. Many persons having certain neurotic and other pathological disturbances practice withdrawal, but it by no means follows that their conditions are due to withdrawal; certainly the evidence given is not sufficient support for such a conclusion. In view of the universality of its usage, the comparatively few cases cited of resultant pathology have not been convincing, especially as in the main few family histories which might throw light on the nervous and mental background of the patients are given.

If withdrawal follows the orgasm of the woman, the effect on her is the same as in normal coitus and she can suffer no disturbance. If it takes place before her orgasm, it has the same effect on her that a premature orgasm on the part of the male has, which also leaves her unsatisfied. This latter is unfortunately by far the most usual way for coitus to terminate so that in any case withdrawal cannot be said to have any unusual effect on the average woman. There may be some anxiety on her part that the withdrawal may not take place in time, but such anxiety exists whenever any uncertain method is used. In fact, anxiety is even more pronounced if no method at all is employed; so that a disturbance resulting from anxiety in connection with coitus interruptus cannot rightfully be attributed solely to this method.

White and Martin,[1] and Taylor [2] call attention to pathology in men as a result of this practice, while Graves [3] refers to disturbances in women.

Kisch [4] quotes a number of authors who look upon coitus interruptus with disfavor. They attribute, among others, the following diseases to its employment: chronic metritis, perimetritis, chronic hyperæmia of the uterus, oöpharitis, elongation of the cervix, infarction of the uterus, œdema of portio vaginalis. "Neugebauer (Kisch says) states that among the numerous cases of uterine carcinoma he has treated, the majority of patients admitted having practiced coitus interruptus."

To the scientific mind, the weakness of this statement is, of course, obvious; for the development of cancer and the practice of coitus interruptus, which is widely employed, may easily be an unrelated coincidence. The unproved theory that the practice of contraceptive methods produces cancer has originated from the acceptance of such statements without analyzing them for fallacies. There is no clinical evidence available to prove that coitus interruptus or contraception *per se* causes cancer.

Kisch continues: "It must be admitted, however, that a certain number of medical men absolutely deny the dangers of coitus interruptus, whilst others consider them altogether trifling. Just as the trend of modern opinion is to believe that in normal men and women the dangers of masturbation are far less serious than was formerly maintained, so also many are now found to maintain that coitus interruptus is harmful only to those with hereditary neuro-

[1] White and Martin, *Venereal Diseases,* p. 792.
[2] Taylor, *Genito-Urinary Diseases,* p. 288.
[3] Graves, *Gynecology,* pp. 113, 141, 534, 254.
[4] Kisch (Ibid.) *The Sexual Life of Woman,* p. 407.

pathic predispositions. Still more unwilling are many to admit that other preventive methods do women any harm. Thus Willie maintains that the continued fear of pregnancy will in most instances do more injury to the feminine nervous system than all the preventive measures in the world."

In the practice of coitus interruptus, division of interest on the part of the man between the act itself and his anxiety to withdraw at the correct moment, as well as the breaking of contact with the vaginal tissues before the orgasm, detracts considerably from the full enjoyment of the act. These circumstances sooner or later cause most men to seek other measures. Experience in our clinic shows that coitus interruptus had failed as a contraceptive in more than half the cases. It is obvious, therefore, that this practice should be used only as a temporary or occasional measure.

REASON FOR FAILURE

Improper timing of withdrawal.

It is known that seminal leaks sometimes occur before ejaculation.

Spermatorrhea.

Second intercourse following soon after the first without urination and proper washing of the parts.

INDICATIONS

Vaginal conditions which render the use of the pessary impossible, or undesirable as in the newly married; or in old multiparæ with relaxed vaginæ. Cystocele, rectocele, prolapse of the uterus, etc.; or in obese women where pessaries are impossible or impracti-

cable. It may also be used occasionally when there are no mechanical appliances available or where there are no toilet facilities.

Advantages

The fact that no equipment is necessary makes the method convenient and simple.

Disadvantages

Uncertainty.
Psychic and other pathological disturbances are possible.
The fact that this method cannot be controlled by the woman.

Recommendation

Since most contraceptive failures of this method are owing to accidents, as enumerated under "Reasons for Failure," the use of contraceptive jelly just prior to intercourse will greatly diminish the likelihood of conception.

COITUS RESERVANS (OR RESERVATUS)

Male continence (Karezza), also called Magnitive Male Continence, is a form of coitus in which restraint is observed by both husband and wife, the object being to develop the act to its maximum of pleasureable possibilities, prolonging intercourse for an indefinite period without experiencing the male orgasm. It is therefore a sexual embrace in which the spiritual or psychic love element is supposed to play an important part. Considerable self-

control and experimenting are necessary. It is, therefore, a method which the majority of men cannot or will not use.

This method was extensively used and advocated by the Oneida Community at Oneida, New York. According to them the sex organs have three distinct functions—urinary, propagative, and social or spiritual. Their plan was to use the social or spiritual when desired, but ejaculation was allowed to take place only when offspring were desired, and provided that children could be properly cared for.

The same objections have been offered against this method as were raised against coitus interruptus. Noyes,[1] in a pamphlet published in 1870, twenty-five years after the foundation of the colony at Oneida, said "Another apprehension suggested by medical men has been that the avoidance of the crisis in sexual intercourse would so increase and prolong the excitement as to induce excess which would lead to various nervous disorders. This suggestion it must be confessed has some antecedent probability, but the general experience of the community has not confirmed it."

The Noyes pamphlet continues with the following summary:

"The New York *Medical Gazette* of October, 1870, in a review of our article on Scientific Propagation published in the *Modern Thinker* of that year, took occasion to criticize the practice of male continence as likely to prove injurious in the way above suggested; and expressed a wish to see the statistics of the Community. Whereupon a professional examination was instituted and a report made by Theodore M. Noyes, M.D., in which it was shown

[1] John Humphrey Noyes, M.D., *Male Continence*, 1870, p. 22.

by careful comparison of our statistics with those of the United States Census and other public documents that the rate of nervous diseases in the Community is considerably below the average in ordinary society. This report was published by the *Medical Gazette* and was pronounced by the editor 'a model of careful observation, bearing the intrinsic evidence of entire honesty and impartiality.' " Van de Warker's report [2] also corroborates the above statements.

The advantages, disadvantages and indications for Coitus Reservans are practically the same as those presented under Coitus Interruptus. This method, requiring as it does such an unusual amount of self-control, will probably never become popular, although it has always had its advocates. In attempts to use this method, especially at first, the use of contraceptive jelly is strongly advised as a precautionary measure because of the possibility of seminal leakage.

CONTINENCE (OR ABSTINENCE)

Before proceeding with a discussion of continence, attention is called to the distinction between it and celibacy. For our purpose, continence will be understood to mean abstinence by married persons from sexual relations; celibacy, abstinence by the unmarried.

Celibacy, of course, is much easier to maintain than is continence in its restricted meaning here. The unmarried man or woman, if so inclined, is usually able to avoid those occasions, places and persons of the opposite sex which would be likely to cause erotic excitement. In the intimacy of married life, however, the problem is different, especially

[2] Ely Van de Warker, *A Gynecological Study of the Oneida Community.* Am. Journal of Obstetries, Aug., 1884.

if the union is a mutually agreeable one. Then the presence, the voice, the touch and the caress of the loved one, all tend to create sexual desire.

Much has been written about continence by moralists and medical authorities. Most medical writers who have given it special study agree that as a means of contraception continence is impracticable, undesirable, and in most cases impossible. Professor August Forel[1] of Zurich, Switzerland, a leading authority on the subject, is quoted here at some length, and probably voices the consensus of medical opinion when he says:

"It is the doctor's duty to give friendly advice to everyone who consults him on sexual questions, without posing as a judge or a moralist. He should never frighten or reprimand a poor hypochondriac who blames himself for masturbation, nor sexual perverts of any kind, unless, of course, they are absolutely dangerous, as sadists. He should, on the contrary, calm their fears and give them encouragement; and in this way he may do much good.

"Hypnotic suggestion gives him a means of directly combating many cases of sexual excitement, or at least of attenuating them by directing the cerebral activity of the patient to other subjects. Each case should be judged by itself. . . . Even between husband and wife, and especially as a consequence of monogamy, certain unfortunate or delicate circumstances may raise difficulties; for example, the periods during which conception should be avoided, a certain time after accouchement and during certain morbid conditions.

"In this case unskilled medical advice may have unfortunate results. When a doctor forbids a husband to

[1] Professor August Forel, *The Sexual Question*, pp. 421–427b.

have sexual intercourse with his wife, he exposes him to two dangers. If the husband remains continent and sleeps in a separate room for too long a time, conjugal love may become so cooled that a permanent barrier is established between man and wife; if, on the other hand, he abandons himself to prostitution, he may contract venereal disease and infect his wife. Again, the husband may become enamored of another woman and wreck the happiness of his family. The doctor who prohibits conjugal coitus thus takes a great responsibility. For this and other reasons we have now an important question to consider.

"Opinions differ considerably as to the effects of sexual continence. All extreme assertions are erroneous. It is quite certain that the harmful effects of continence have been greatly exaggerated. Normal persons of both sexes may remain continent, although not without some trouble and discomfort. In a general way, we may accept the statement that many morbid conditions are known to result from sexual excess, but few from continence. This, however, goes a little too far for certain psychopaths and sexual hyperesthetics often lapse into a state of mental and nervous excitement from forced continence, so that their neurosis becomes accentuated and may even end in insanity. I have seen this occur both in men and women, but such cases are very rare.

"Continence is not an easy matter for erotic individuals, and requires a heroic internal struggle, especially in men. The Canadian reformer, Chiniqui, relates the history of a monk who tore off his testicles in despair of being able to conquer his violent sexual appetite.

"The fine preachers of morality, endowed with a cold temperament, or simply senile, who hold forth on the

'immorality' of the consequences of the sexual appetite, would do well to take such facts to heart. . . .

"It seems almost incredible that in some countries medical men who are not ashamed to throw young men into the arms of prostitution, blush when mention is made of anti-conceptional methods. This false modesty, created by custom and prejudice, waxes indignant at innocent things, whilst it encourages the greatest infamies.

"There are a great many cases, especially of a pathological character, but none the less also in normal and sound individuals, in which procreation, within wedlock or without, is dangerous, either definitely or temporarily, either for the mother or child or for both, and for that reason should be interdicted. Very few men and a very small proportion of women—no matter how firmly they may be resolved—are capable of effectually suppressing their sexual needs. And even if they succeed, the consequences are generally of a disastrous nature, loss of marital love, secret illicit relations with others and subsequent infidelity, nervous disorders, impotence, etc. . . .

"I do not admit that constitutionally frigid natures, or those who find it easy to control their sexual appetites, have any right whatever to pose as normal samples of the human race and to simply ignore the existence of temperaments, characters and constitutions so widely differing from their own. This world's history teaches us that nothing good has ever come from such vain assumptions unless it be empty phrases and dead letters." [1]

Men who are devoted to their wives find it exceedingly difficult to remain continent for long periods. For many

[1] Professor August Forel, *The Sexual Question,* pp. 421–427b.

wives it is equally difficult, especially after the first year or two of marriage. Prior to marriage they may feel little or no sex desire, and for some time afterward perhaps they will continue indifferent to coitus; but when they begin to experience the orgasm, as they properly should, they derive intense pleasure from the love embrace and may crave it as passionately as do their husbands.

Mutual self-control for stated periods is not only possible but desirable and may prove beneficial; but as a contraceptive method extending intermittently over a number of years continence is very impracticable and inefficient, as a single indiscretion a year may result in an undesired pregnancy. The chief objection to it, therefore, is that it is impracticable and, for a great many people, impossible.

SPERMATOXINS

A large part of the practice of medicine today is devoted to preventive measures, and the production of an artificial immunity against disease plays a large part in this program. New immunizing sera, vaccines, and anti-toxins are continually being discovered. It is, therefore, not strange that the question should arise as to the possibility of producing an immunity to pregnancy. A considerable amount of experimentation has already been done along these lines. Metchnikoff, Dittler, Guyer [1] and others have shown that a serum may be prepared from the semen of rats and guinea

[1] Metchnikoff, *Ann de l'Inst.* Pasteur, Oct., 1899, XIII, 737–769. Dittler, *Muench* med. Wochnschr., 1920, LXVII, 1495; Ztschrf. Biol., 1902, LII, 72. Guyer, *American Naturalist,* LV, 637, *Jour. Exper. Zool.,* 1922, XXXII, 207.

pigs which when injected subcutaneously or intravenously into the female of the same species produces an immunity against pregnancy. A summary of the report of Guyer [2] is given as follows:

SUMMARY

1. Spermatoxic sera, prepared by injecting fowls repeatedly with the spermatozoa of rabbits, are toxic in vitro for the spermatozoa of both rabbits and guinea pigs.
2. When introduced into the blood stream of male rabbits at intervals of four or five weeks, such serum produced partial or complete sterility. Inactivity of many spermatozoa, reduction in number, or even complete disappearance from the semen occurred.

In one case, the sterility was partial or temporary; in the second, complete, when judged by the breeding test, although the germinal epithelium appeared to remain normal and a few spermatozoa were visible; in a third, complete, accompanied by marked degenerative changes in the testicles.

3. Microscopical examination of the testes of the latter individual (rabbit 83) showed that not only were the mature spermatozoa affected, but disintegrative changes had taken place or were in progress in the semineferous tubules.
4. The blood serum of a rabbit injected intravenously with its own spermatozoa becomes highly toxic for the spermatozoa of rabbits including its own.

[2] Studies in Cytolysins. III Experiments with Spermatoxins. M. F. Guyer, Zoological Lab., Univ. of Wisconsin. *The Journal of Experimental Biology,* Vol. 35. No. 2.

5. The spermatozoa of a rabbit which has been repeatedly injected with its own semen are much less viable both in normal rabbit serum and in spermatoxic serum than are normal spermatozoa. Presumably such spermatozoa have been influenced specifically in vivo by the spermatoxic serum of their own host.
6. Since an animal can thus on occasion build antibodies against its own tissues when they have become misplaced or altered, and since antibodies can directly or indirectly affect the germ cells, it is reasonable to suppose that such influence may be the source of certain germinal variations.

It is conceivable, judging from the above results and from the results of other investigations, that it may be possible to prepare from human semen a serum or spermatoxin which when injected subcutaneously into a woman will render her sterile for a time. If such a serum could be prepared which when injected would give an immunity for say nine months to a year, with a possibility of extending the immunity if necessary by further injection at the expiration of that time, it would have a great advantage over methods now in use in that the matter would be under medical supervision and control. Moreover, the woman would not have to concern herself with any technique or apparatus. Even the feeble minded could be controlled by such a simple procedure. Experiments in this promising field are still going on and it is hoped that the future may develop some such simple and effective method. The simplification of methods is the outstanding problem in experimental contraception today, even greater than that of increasing the efficiency of present methods.

VITAMIN E

Studies in animals have shown that the sex ratio is often affected by diets. The degree of fertility also is markedly affected by diet. It is also well known that war and famine have caused similar effects in the human species. From all of these studies and observations, there has not been developed any method whereby the degree of fertility in the human species can be influenced in any marked degree with a diet that would be otherwise adequate. Barnett Sure,[1] of the Laboratory of Agricultural Chemistry in the University of Arkansas, in a paper entitled Dietary Requirements for Reproduction, called attention to a new vitamin which appears to be necessary for reproduction and suggests the name Vitamin E for this new element. A summary of this article is given herewith:

SUMMARY

1. From experiments initiated four and one-half years ago and recently completed, the results of which are embodied in this and the preceding paper, I conclude that in addition to the antixerophalmic, antirachatic, antiberiberi and antiscorbutic vitamins there exists another hitherto unrecognized vitamin that is essential for reproduction, which becomes evident only in breeding-experiments where rations composed of purified food substances are employed.

[1] Dietary Requirements for Reproduction II. The Existence of a Specific Vitamin for Reproduction. Barnett Sure, Lab. of Agricultural Chemistry, Univ. of Arkansas. *Journal of Biological Chemistry,* January, 1924.

2. This reproductive vitamin has been found to occur in Georgia velvet bean pod meal, polished rice, yellow corn and rolled oats.
3. If the term "D" be accepted for the designation of the antirachitic factor, it is proposed that the term "E" be adopted to represent this new dietary factor that influences reproduction.

(NOTE: There is a good bibliography on the subject of Vitamin E with this article.)

It is quite possible that a vitamin such as described may be so controlled that fertility may be regulated by a selected diet. If a sterility can be produced by a regulated diet which can be controlled at will, it will greatly simplify the problem of contraception. Such a method is not outside the realm of possibilities. Evans,[2] of the University of California, who has done most of the original research, has recently shown that even though the diet may not be absolutely free from Vitamin E, which is the vitamin essential to reproduction, it is possible to add a substance which will render negative the presence of E vitamin, thus making it a sterility diet. It may be seen from the above and from the preceding discussion of spermatoxin that work is being done to discover physiological methods which will render contraception a comparatively simple matter. These studies, together with others in the field of endocrinology, may be expected to yield interesting results in the not too distant future.

[2] Vitamin E. The Destructive Effect of Certain Fats and Fractions Thereof on the Antisterility Vitamin in Wheat Germ and in Wheat Germ Oil. Evans and Burr, *Journal American Medical Association,* November 5, 1927, Vol. 89, No. 19, p. 1587.

HORMONAL CONTRACEPTION

By the use of certain animal extracts such as those of the liquor folliculi, of the corpus luteum, or of the placenta, by daily or short interval injection, temporary sterility may be induced in rabbits lasting the equivalent of many months in women. (*Haberlandt Klin. Wochensch.* 1923, 11, 1938 and 1927, 742,949.) Some day this may be developed for use in human beings.

SOME UNUSUAL PRACTICES

DISCRETION

Discretion,[1] also called *Demiretrait* by the French who use this method to some extent and attribute its origin to Spain, consists of a partial withdrawal just before the male ejaculation. The wife draws her thighs together and the husband extends his and completes the act. In this position the penis is drawn down to a point where it cannot deposit semen into the cervical canal, but just within the lower half of the vagina, the man exercising care that the penis is not withdrawn too far. That part of the penis which is withdrawn is grasped by the woman's labia and thighs. This method does not interfere with the full enjoyment of the orgasm and it renders more effective any other method which may be used at the same time, such as jellies, suppositories, douche, etc.

JAPANESE METHODS

In Japan,[2] some of the more intelligent women use a

[1] Moyens *d'eviter la Grossesse,* G. Hardy, p. 47.

[2] Dr. Tokijiro Kaji, Fifth International Birth Control Conference, London, England, July, 1922—*Contraceptive Session Proceedings.*

very soft paper called *Yoshinogami.* These papers are placed high up in the vagina so as to cover the cervix, thus occluding the os.

Another method used in Japan is the finger douche, called *Shimoyu.* Immediately after intercourse, these women go to the bathroom and clean out the semen from the vagina with the fingers, frequently dipping them in warm water. Those who practice this method say that after a short time it is very easy to differentiate between the "feel" of the vaginal secretions and of the semen, and on account of the "laking" of the semen it holds together sufficiently to be removed with comparative ease. The author has met a number of women who have reported that they were practicing it successfully.

Lathering the vagina with the fingers, and a swab, in the squatting position, has shown a high degree of safety in the experience of H. S. Dixon of Detroit, covering some four thousand women constantly and "professionally" exposed to chances of conception.

A RUSSIAN METHOD

In Russia [3] the following method is frequently used. As soon as the woman stops menstruating, she goes to her physician. The os still being open and no dilating necessary, a few drops of tr. iodine are injected into the uterine cavity. No further precautions are supposed to be necessary. Should this method fail, the woman returns not later than five days after the period was due. The uterus is then swabbed out with tr. iodine which brings on men-

[3] Dr. Anna K. Daniels, First American Birth Control Conference, Hotel Plaza, Nov. 11, 1921—*Contraceptive Session Proceedings.*

struation. This method is also in use in many other European countries.

AUTOEROTISM

A good many men who have strong erotic natures, finding themselves married to women of less amorous natures, rather than offend them by insisting on their marital rights at unreciprocal moments, resort to masturbation to relieve their intense desire. According to Starr,[1] Brill,[2] Forel,[3] Menzies[4] and Meagher,[5] the evils attributed to masturbation have never been substantiated. However deplorable this practice may be, it must be admitted that it is preferable to promiscuous extramarital relations with their attendant evils of venereal infections. Havelock Ellis quotes Sir James Paget as saying, "Masturbation does neither more nor less harm than sexual intercourse practiced with the same frequency, in the same conditions of health, age and circumstance. I wish I could say something worse of so nasty a practice."

[1] Starr—*The Adolescent Period,* p. 178.
[2] Brill—*Psychoanalysis,* p. 84.
[3] Forel—*The Sexual Question,* p. 229.
[4] Menzies—*Autoerotic Phenomena in Adolescence,* p. 49.
[5] Meagher—*A Study of Masturbation and its Reputed Sequelæ,* p. 27.

CHAPTER VII

Permanent Methods of Contraception

IN the majority of cases where pregnancy is contra-indicated, the conditions are more or less temporary so that only temporary measures are needed. It is always hoped that by the use of these methods, after a sufficient time has been allowed for proper treatment of the condition or a sufficient rest, the patient may again return to the child-bearing process. Physicians and patients alike are united in preferring these temporary methods with the alternative which they offer.

But there are, unfortunately, a large number of women who for various reasons are rendered permanently incapable of child-bearing without endangering their health or even their lives. In these cases permanent methods should be considered because they will relieve the patient from the constant worry lest an unwanted pregnancy may have taken place. This worry in itself may be a great factor in prolonging a recovery from many conditions. Sterilization is often resorted to in these cases; but since the matter has been fully discussed by other authors (such as Laughlin [1]) who deal also with the eugenical aspects of sterilization, this subject will be given only a modest amount of space in this book.

[1] *Eugenical Sterilization,* Harry H. Laughlin. Ibid.

THERAPEUTIC AND EUGENICAL STERILIZATION

Sterilization is, of course, the most effective of all contraceptive methods. When the usual operation is once performed, the person is rendered permanently incapable of procreation. This method, therefore, should be reserved for those severe and permanent pathological conditions, such as a woman who is congenitally deformed or who has other anatomical defects of a serious nature in which pregnancy would be a serious threat to her life. It may also be desirable in other cases of permanent and severe defects, such as advanced tuberculosis, severe cardiac defects, renal insufficiency of an advanced type,—especially if the patient has had therapeutic abortions performed or has had one or more Cæsarian operations.

"Laws [2] for the punishment of crime," says Laughlin, "have no real deterrent effects upon the mental defectives, and there has been a failure to check crime by law enforcement against this type of offender. Life has become unsafe by reason of the presence of this type in society despite industrial precaution and efforts of police and courts. Their early and rapid multiplication increases the threat to civilization. All this is known to intelligent editors, physicians, lawyers, judges and social workers. When these facts become common knowledge, progressive legislation will be enacted."

In twenty-three states, laws have been passed providing for the sterilization of the socially inadequate or unfit. Thus the physician may be called upon to operate on these cases. Therefore a summary of the subject of sterilization will not be amiss in such a book as this.

[2] *Eugenical Sterilization in the United States,* Harry Laughlin, Chap. XII, p. 396.

METHODS OF STERILIZATION

Needless to say, the older operations of castration and ovariotomy are not performed for the purpose of sterilization, for they interfere with the internal secretions and cause other general changes which are undesirable.

The operations used are DOUBLE VASECTOMY in the male, and DOUBLE SALPINGECTOMY in the woman. Those who are interested in the detailed technique of these operations are referred to Laughlin's *Eugenical Sterilization.* A BRIEF OUTLINE OF THE TECHNIQUE is all that will be presented here.

It may be said in passing that simply tying the Fallopian tubes or cutting them is not enough. Cases have been reported where pregnancy has followed this procedure. About one inch of the tube nearest the uterine body should be resected. The peritoneal surfaces should then be turned in and sewed over, thus obliterating entirely all openings. In the male, a silk ligature may be tied firmly around the vas and then it should be severed on the distal side. The distal end of the vas may be left open in the scrotal sac. These operations are not followed by any change in sex desire or appreciation, or by other undesirable results. So far as is known, the only results are a loss of the power of procreation. These statements are based on the general observations of surgeons who have operated on hundreds of cases. Although all cases have not been followed up, a great many have returned after several years [8] and report substantially as above.

HYSTERECTOMY

This, of course, is a sterilizing operation, but it is not an operation of choice, salpingectomy being preferred.

[8] **Dr. Margaret H. Smyth, Stockton, California State Hospital.**

CAUTERY

Dickinson has devised a cautery which may be inserted into each corner of the uterine cavity. The current is then turned on, cauterization takes place and a scar is formed at the spot where the tube enters, thus closing it. The success or failure of the method may be determined by the Rubin insufflation test for patency of the tubes. This method is still being studied.

PERMANENT AND TEMPORARY STERILIZATION BY X-RAY AND RADIUM

Much study has been done, chiefly in Germany, in irradiation of the ovaries, both in animals and in human beings. Seitz,[4] using 30 per cent of the erythema dose, could arrest menstruation and ovulation for 1½ years. There is, however, considerable uncertainty about the dosage, since a permanent sterilization is occasionally brought about in the attempt merely to lessen excessive menstruation or shrink fibroid tumors. The possibility of so damaging the ova that after the intermission pregnancy will result in deformed children was fully discussed in an important symposium reported in the Archiv. für Gynekologie 125, 604, 1925. Flaskamp had 187 children after irradiation apparently normal, and the cases of Gummpert and Bailey seem to be isolated. The objection is, as already stated, the possibility of the production of a change of life, with the discomforts commonly encountered when prematurely or suddenly induced, particularly if this occurs in younger women.[5]

[4] Seitz, *Roentgen. U. Radium Bestrahlung,* Biol. U. Path. D. Weibes, 1924.
[5] Geller, *Experimentale Eierstockbestrahlung,* in Ergebnisse der medizinischen Strahlenforschung, II, 403.

The Roentgen ray is a convenient ambulant method, but the lack of ability, even in the most skilful hands, to regulate the dosage or the duration of the effect handicaps it seriously. The flushes and nerve disturbances of the sudden change of life are said to be somewhat less than when the ovaries are removed, but are definite. Radium has had relatively few trials, but seems to offer more exactness in dosage and duration of effect. It involves, however, anesthesia and a hospital operation. Either attack has occasionally lessened sex desire and shrunk the passages.

As to either method, when the effects have passed off and menstruation and fertility return, in over 250 children born of women who were not pregnant when radiation was done, only the defectives of Gummert and Stacy could be found by Dickinson, in a recent review of the literature, as chargeable to these agents. On the other hand, the large number of idiots and defectives born when irradiation was applied in early pregnancy shows that whenever abortion does not occur after X-ray, the uterus must be emptied with forceps or curette within a short period.

Pathology

Investigators agree that there is no change or deterioration in libido or erectile power from exposure to X-rays. Investigations of the pathology of X-rays and radium show that sterilization is due in the male to destruction of the epithelial cells lining the tubuli seminiferi which leads to azoöspermia. In the female, atrophic changes take place in the ovaries with destruction of the Graffian follicles.

Comment

Sterilization should be performed as a therapeutic measure to conserve health and to save life, or for the biological improvement of the race, but not as a punitive measure for criminals.

Technique

This is not a proper place to deal with the technique of sterilization. The radiologist is fully informed on this subject. Nevertheless the general practitioner may be asked to advise patients in this matter and therefore a brief outline of the procedure will be given so that he may be able to advise the patient what to expect. In sterilizing women by X-ray, the dose is two-thirds skin erythema.

About 150,000 volts on the tube,
Eight milliamperes through the tube,
One-fourth millimeter of copper as a filter,
Skin focus distance, sixteen inches.

The above is approximate and may vary with different machines. Accurate measurements must be made by each operator. The entire dose at a single exposure for full sterilization is three hours. On account, however, of the sharp reactions caused by a single dose, it is desirable to have it divided into eight treatments of twenty minutes each. These are given once a week. By the use of this method, the patient is not inconvenienced by the symptoms of a sudden menopause and there is no pain. In younger women two or three extra treatments may be needed. The patient should return at the end of two or three months

and, if menses have returned, two or three more treatments will usually suffice to produce complete sterilization.

During X-ray treatments women may have amenorrhea without being sterile.

With men there is no danger of violent reaction and sterilization may be done at a single sitting. It is absolutely painless; as a matter of fact the patient may be entirely unconcious that anything has taken place. Many radiologists who are continuously exposed unintentionally and unavoidably become sterile from scattered rays about the laboratory. Radium is equally effective in producing permanent sterilization in women, usually by a single exposure. Fifty milligrams of radium are placed in a tube. This is covered with rubber to prevent surface reactions. The patient is given a mild anesthetic, and the cervical canal is dilated. The tube is then placed in the uterine cavity with a string attached to facilitate withdrawal. The patient is put to bed and the tube is allowed to remain in the uterus twenty-four hours. It is then withdrawn and the patient confined to bed for another twenty-four hours. There is usually severe and immediate reactions such as nausea, vomiting and prostration followed by symptoms resembling surgical menopause. As already stated, in sterilization by X-rays or radium there is no loss of potency.

INDICATIONS

Sterilization may be considered desirable in any of the following conditions:

1. Idiots, imbeciles, feeble-minded.
2. Transmissible defects of a serious social nature, such as

incorrigible criminality, chronic alcoholism, syphilis, etc.

3. Certain nervous and general defects, such as epilepsy, Huntington's chorea, hæmophilia, certain thyroid conditions, etc.
4. Certain spinal and pelvic deformities where life would be endangered by pregnancy.
5. After Cæsarian sections or therapeutic abortions.
6. Advanced tuberculosis.
7. Severe cardiac defects.
8. Renal insufficiency of an advanced type.

If a woman with any of these conditions is being operated on for any abdominal condition it may be especially desirable to consider the advisability of performing at the same time a double salpingectomy.

REESTABLISHING FECUNDITY AFTER VASECTOMY

While Vasectomy is a permanent method of sterilization it is not absolutely irrevocable. This fact should be more widely known. A quotation from the "Queries and Answer Department" of the *Journal of the American Medical Association* is given here, because it deals with this question, and incidentally touches upon two other points; namely, that there is no danger of injured sperms causing monsters, and that individuals in possession of satisfactory contraceptive measures may still desire children.

To the Editor.—What is the possibility of reestablishing the fecundity of a man who was sterilized several years ago by ligating and severing the vasa deferentia? Would there be any danger to the life or welfare of the resulting progeny by reason of defective spermatozoa as a result of the

sterilization? At the time of the operation the man and his wife were in poor health, but now they are in good health and desire additional children. Please omit my name.

M.D., Indiana.

Answer.—The restoration of the potency of an occluded vas deferens has been successfully accomplished and reported by many surgeons during the last twenty years, and the operation, called resection of the vas is now considered a standard procedure.

That the production of spermatozoa in the testis is in no wise impaired by long occlusion of its outlet duct has been demonstrated for periods up to seventeen years. There is no ground in theory or in fact for suspicion that the potential capacities of ova fertilized by such spermatozoa are impaired or perverted; hence there is no ground for fear that the resulting progeny might be in any way impaired by reason of such prior occlusion.

—*Journal American Medical Association.* January 1, 1927, Volume 88, No. 1, page 49.

CHAPTER VIII

A New Method for America

Combination of Diaphragm Pessary and Contraceptive Jelly

IN the several preceding chapters adequate consideration has been given to the many different contraceptive measures which are at all worthy of serious attention. Among these methods, there is one which, in combination with another method, seems most nearly to meet the requirements of an ideal contraceptive. This is the Diaphragm Pessary of the Mensinga type, used in connection with a contraceptive jelly,—now available in America in a modified form, known as the "Ramses."

Because of the gratifying results obtained through the use of this method in our Clinical Research Department during the past six years, the author feels warranted in emphasizing it in this special chapter,—presenting first the essentials of the diaphragm pessary method, and concluding with a brief discussion of the combination of the diaphragm pessary and a contraceptive jelly.

Whatever may be the merit of other methods, or whatever method the physician may properly decide to use in special cases, this combination method has proved in wide clinical experimentation to be worthy.

In previous years much more attention was paid to the subject of contraception by physicians in Europe than was the case in America, and many of the devices and methods now in use had their origin there. Among other devices produced there was the Diaphragm Pessary, first used by Dr. Mensinga of Flensburg in 1842. He took an ordinary hard rubber ring, such as is used for correcting displacements and prolapse of the uterus, and covered it with sheet rubber to form a diaphragm across the vagina. Later the rim was made of a piece of spring steel instead of the hard rubber, facilitating placement by the patient and enabling the pessary to adjust itself more readily to the contour of the parts. The soft rubber sheet was made more redundant, giving it the shape of a cap, and it has existed in that general form ever since. It is known as the Mensinga Pessary, or the occlusive pessary of Mensinga.

This pessary has been used with gratifying success in the Dutch birth control centers since their establishment in 1885, according to Mensinga's co-worker, Dr. Aletta Jacobs, who has had forty years' experience with the method. The late Dr. J. Rutgers, who for many years had charge of the training of nurses for the Dutch clinics, estimated that more than 30,000 cases had been instructed in the use of the Mensinga pessary. Most of the contraceptive centers in England are also using this diaphragm pessary, and it is employed to quite an extent in continental Europe.

This diaphragm type of pessary was introduced into America from Europe. The first record of its use in the United States is contained in a paper by the author of this book, entitled *The Pros and Cons of Present Methods* in which he gave a description of the Ramses pessary, a mod-

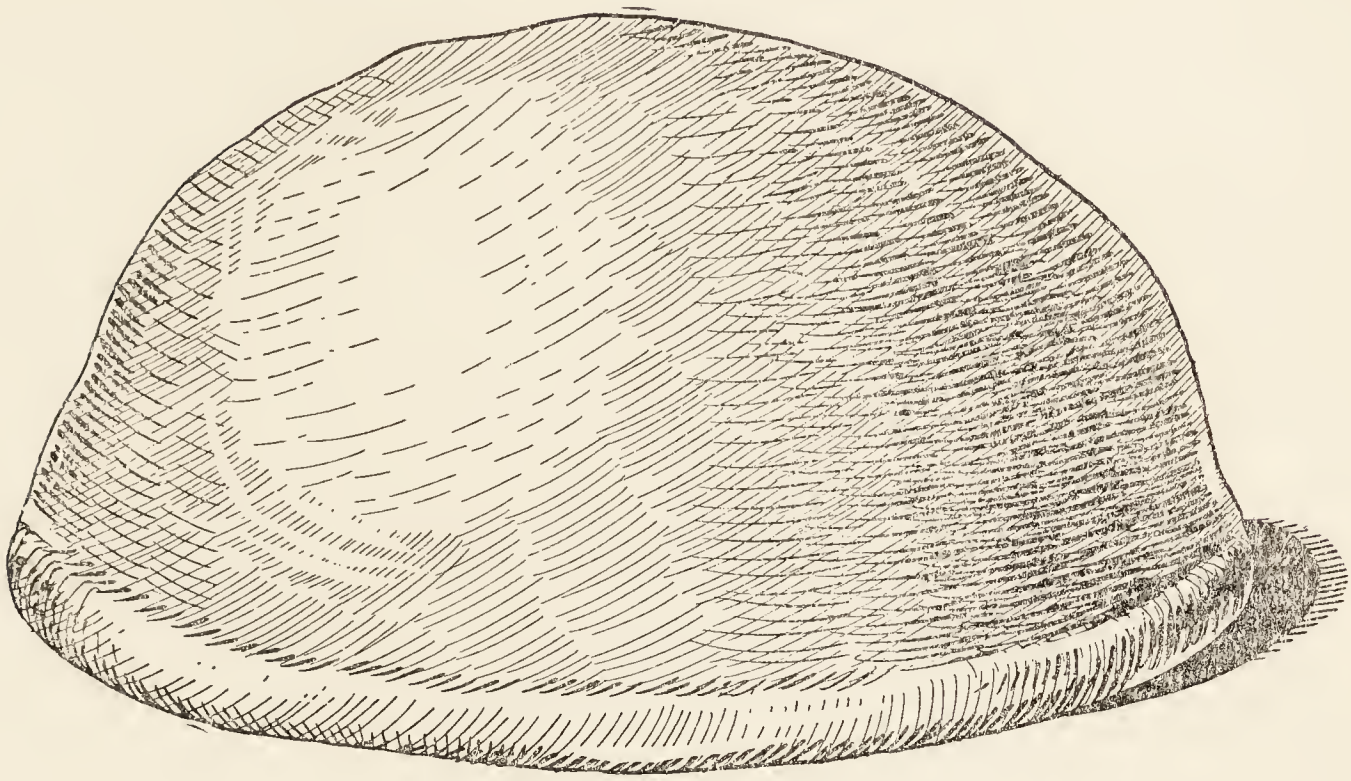


FIG. 23

Mensinga Pessary. Black opaque uncured soft para rubber with flat metal watch spring in the rim.

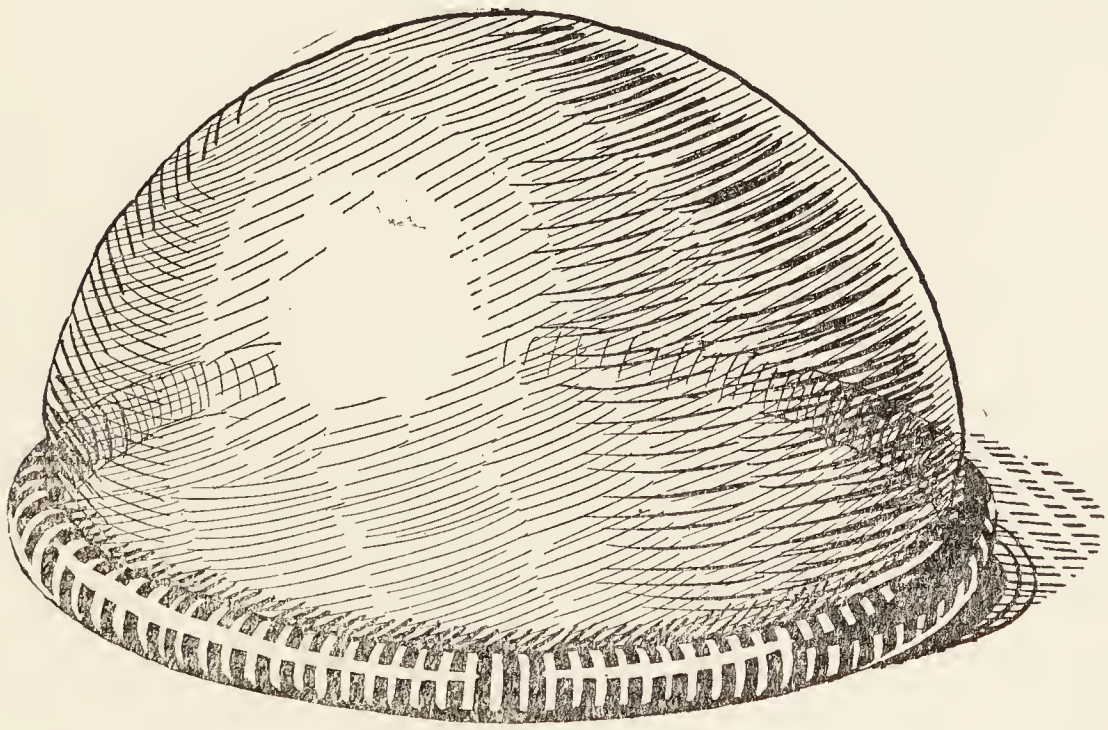


FIG. 24

Ramses Pessary. Amber colored, nearly transparent when new, virgin rubber, with coiled steel wire spring in the rim.

ified type of the Mensinga, with a clinical report on fifty cases, at the Contraceptive Session of the Mid-Western Birth Control Conference held at the Hotel Drake, Chicago, Illinois, October 31, 1923. This meeting was attended by about one thousand physicians, with Dr. Jos. L. Baer of Chicago as the chairman. Since then, this type of pessary has been prescribed for thousands of cases by our Clinical Research Department with good results.

Kisch [1] says of it: "A rationally constructed apparatus, and one which in general appears to fulfil its purpose very well, is the *pessarium occlusivum* constructed by Mensinga, and now manufactured in various modifications. The occlusive pessary is a hollowed hemisphere of rubber membrane, around the margin of which passes a steel ring. The size of the pessary must be adapted to the individual case. It is introduced into the vagina in such a way that the outer surface of the hemisphere occupies the vaginal fornix, while the steel ring touches the vaginal wall all around; by this means, the vaginal fornices and the os uteri are completely shut off from the lower part of the vagina."

Recently it was felt by some that the spring rim was too thin, and too harsh in the action of expanding, to gain the round position. Another objection is that the spring expands and contracts only in one plane. To overcome these defects a coiled spring was substituted for the steel strip. It offers a broader purchase to the tissues and, though far less rigid than the flat spring, it regains its round shape effectually. This is the Ramses diaphragm pessary previously mentioned, which has been widely used for many years in Germany and now has a considerable and increasing use in the United States.

[1] Kisch, *The Sexual Life of Woman*, p. 411.

In some cases where the cervix is unusually long and rests firmly on the pelvic floor, the stiff spring of the original Mensinga pessary makes it possible for the patient to place it with greater ease than is possible with the Ramses type. The entering pole passes more readily past the cervix into the posterior cul de sac; whereas the softer spring of the Ramses tends to buckle in front of the cervix in this type of case and to be crowded into the anterior fornix, thus leaving the cervix exposed. On the other hand, the Mensinga pessary, because of the flat spring in its rim, does not so readily regain the round position on removal as does the Ramses type with the coiled wire spring. It, therefore, tends to become oval and some patients continue to use it in this form. The sides of the pessary in this case do not cling so closely to the sides of the vaginal walls as do those of the more perfectly round Ramses type.

The Mensinga pessary is usually made of uncured black opaque para rubber. It is very elastic and quite durable. The Ramses is made of virgin rubber of amber color and is nearly transparent when new. The average life of these pessaries when in constant use is about one year, some lasting as long as two years. In either case, the principle is the same—that of a diaphragm in the long axis of the vagina, —and the use of either is a matter of personal choice. Both types are used in our Clinical Research Department. The Ramses seems to be the one most often selected. The sizes range from fifty to ninety millimeters in diameter.

EXAMINATION

The patient is placed in the gynecological position and the usual gynecological examination is made, including inspection of the perineum, vagina and cervix. Special note is taken of the condition of the pelvic floor. Bi-

manual palpation of uterus, tubes and ovaries is then made. Attention is closely directed to the position and mobility of the uterus. The presence of discharge, cervical lacerations or erosions is observed. From this examination it will be determined whether the patient is a good or a poor contraceptive risk from the anatomical standpoint. A small healthy cervix without lacerations, vaginal walls with plenty of tone, and an intact perineum,—in other words, the condition found in a healthy young nullipara,—present the best contraceptive risk, and any method used for this type is likely to give the best results of which it is capable.

On the other hand, a cervix with lacerations, more or less wide-open os, relaxation of the vaginal walls, sagging of the uterus, anteriorly displaced cervix, a poor pelvic floor, and perhaps cystocele and rectocele, constitute the opposite type, which is the poorest risk. Any method used for a patient of this class will give less satisfactory results than for a person in better anatomical condition. Such defects should first be corrected by an operation.

The laws of the State of New York limit contraceptive practice to the "cure and prevention of disease." Applicants to the American Birth Control League's Research Department who are not entitled to treatment do not get past the attendant's desk; but of those admitted to the doctor in charge, more than one-half are found to have some local pelvic trouble which calls for remedial treatment. Thus it is obvious that contraceptive advice should never be given until the physician has made a careful examination.

If the patient's anatomical condition is serious and permanent, a sterilizing measure such as double salpingectomy should be considered.

FITTING

Having decided to fit a diaphragm pessary, the patient being in the gynecological position, the first two fingers are inserted in the vagina as in the usual examination. When the cervix is reached, the vaginal vault is explored to determine its approximate size. This should be done with the two fingers spread well apart.

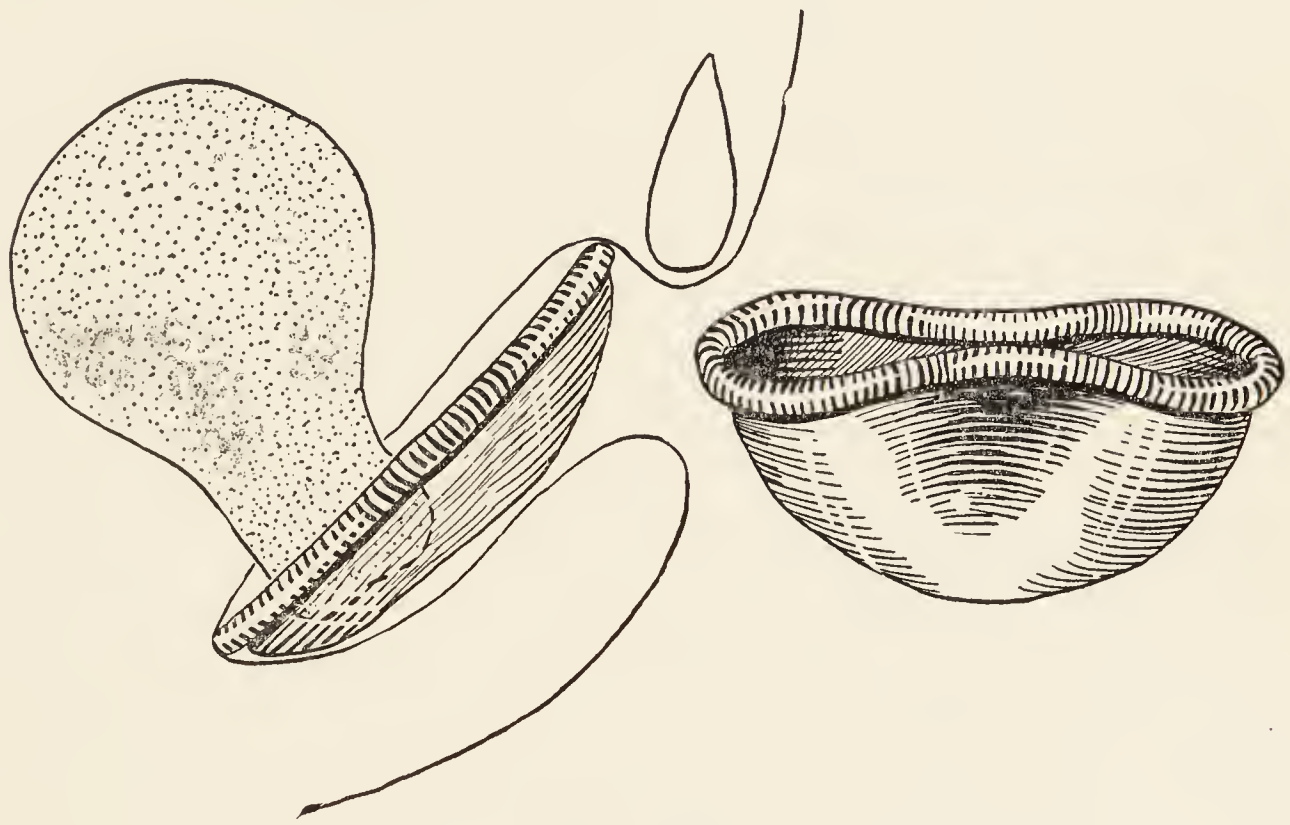


FIG. 25

This diagram illustrates the placement of a diaphragm pessary. With the patient in the supine position, the pessary is inserted with the cup or concavity upward. It is pushed straight in until the entering part has passed the introitus. This entering part is then directed downward and backward and pushed past the cervix into the posterior cul de sac. The last part to enter is then pushed up behind the symphysis pubis as in the diagram. The soft rubber and spring do not in any way interfere with coitus. Feeling the cervix through the rubber is a test that the pessary is in the correct position. The pessary may be removed by passing the finger over the rim and "hooking" it out.

The pessary of the best size is one which slightly dilates the vaginal wall in every direction without causing undue pressure. No measuring device of any kind is trustworthy,—the pessary itself should be used to obtain the proper fitting.

Having made the selection, squeeze the pessary between the thumb and first finger of the right hand, with the cup or concave side up, or toward the patient. It should now be smeared with a contraceptive jelly to facilitate its entrance and give added protection (see the section entitled "Maximum Efficiency" at the close of this Chapter). Oil or vaseline should not be used, for they rot the rubber. As the pessary enters the vaginal orifice, it should be directed downward and backward into the posterior cul de sac. As it passes the sphincter muscles, the fingers release the sides of the pessary but continue to guide the part first entering under the cervix to the posterior cul de sac. The anterior portion of the rim is now pushed upward to a point where it impinges on the vaginal wall *behind the symphysis pubis.*

In some cases due to a prominent anterior cervix the pessary will tend to buckle in front of it instead of sliding past, when it is being inserted. This can sometimes be overcome by instructing the patient to hold the entering rim against the pelvic floor with the thumb of the left hand until it slides past the cervix. In some cases the entering pole may be first placed behind the symphysis and the other pushed along the pelvic floor into the posterior fornix. The Mensinga pessary with a stiff spring is often the best for these cases.

When it is in proper position the cervix can be felt through the soft rubber. The pessary will not be at right angles to the vagina, but will lie in the long axis of the vagina. The fingers are now passed around the rim

to make sure that the fit is fairly snug. If the tissues feel tense around the rim, try a smaller size. If the fingers can pass easily over the rim, a larger size should be selected. The principle to follow is to use the largest size possible without undue distension. In our Clinical Research Department, about ninety per cent of the cases require sizes which are 70, 75 or 80 mm. in outside diameter.

Fitting Those About to Be Married

The physician is frequently called upon to advise young people about to be married how to avoid pregnancy during the first year or two. Besides health reasons there are people who are traveling as government employees, engineers, theatrical people or others who are unsettled and whose future is doubtful.

These couples are sometimes advised to use condoms or withdrawal for a month or two and then the woman is fitted with a pessary. This method has the advantage of relieving the young bride of the embarrassment of using contraceptives in the early weeks of married life. It is, however, not always possible to see these patients a second time, so that complete advice must be given on the first visit.

As condoms and withdrawal are uncertain especially with the inexperienced and newly married, it is preferable to fit the woman at the first visit. The author prefers this procedure in all cases. The patient is placed in the lithotomy position. If there has been no gynecological examination or treatment and no previous sex experience or use of douche nozzles which might have dilated the introitus, usually one finger will be admitted on examination. The

hymen will have a thin and sensitive edge. Dilatation, and rupture of the hymen if necessary may be accomplished by first applying to the parts a cocainized ointment or other local surface anesthetic. Then proceed to dilate by inserting graduated-sized test tubes or by the use of a rectal speculum. If the hymen is tough and resistant it may be snipped with scissors. Dilatation should proceed until two fingers can be admitted without undue stretching. If this procedure were adopted by all young women before marriage, it would save considerable embarrassment and sometimes much pain to say nothing of the unfavorable psychic reactions which often occur at the time of defloration.

INSTRUCTING THE PATIENT

The correct size having been determined, the pessary is now removed and the physician is ready to instruct the patient in the technique of adjusting and taking it out. After cautioning her with regard to the importance of cleanliness of hands, pessary and parts, the woman, still in the gynecological position, is taught to recognize the cervix. She is now shown how to hold the pessary in the right hand and to anoint it with contraceptive jelly, then to push it as far as it will go behind the cervix, thrusting the part entering last upward against the front of the vaginal wall. *Ascertain next if she can feel the cervix through the pessary.* The physician will now verify her technique. If the pessary is in the proper position, she will be asked to remove it by hooking her finger on the underside of the rim and pulling it out. The process should be repeated two or three times.

This may sound complicated and difficult, but as a matter of fact the technique is very simple. With few

exceptions, patients readily and quickly acquire it. Not more than ten minutes need be taken in selecting the pessary and instructing the patient in its use. When fitting it, the physician should make sure that the bowels and bladder are empty; otherwise too small a size may be chosen.

The patient may be advised to make the insertion of the pessary a part of her evening toilet if desired so as to be always prepared. It takes only a few seconds. Some women find it distasteful to place anything in the vagina, but when the insertion of the pessary is made a part of the daily routine of undressing it soon becomes a matter of habit and the psychic aversion to the practice disappears.

The patient should be instructed not to remove the pessary until morning, or at least not sooner than four hours after coitus,—thus allowing time for the vaginal secretions and the contraceptive jelly to kill all sperms before the os is uncovered. THIS IS VERY IMPORTANT. Then a two-quart cleansing douche should be taken, half of the water being used before, and the other half after removal of the pessary. The pessary should be washed with soap, dried and powdered with corn starch or talc and carefully put away. ON NO ACCOUNT SHOULD THE PESSARY BE WORN MORE THAN TWELVE HOURS.

Pessaries are affected by vaginal secretions, but they will last with proper care from six months to a year and a half. It has been objected that when the rubber loses its life the spring will become exposed and may injure the vagina; but where the pessary is washed frequently, defects are likely to be detected in the handling before they do any injury. No such injury has been observed in nearly six years' clinical experience.

SUMMARY

The diaphragm pessary has been prescribed in nearly 5,000 cases in our Clinical Research Department and the results were investigated after one year had elapsed. The figures showed about ninety-six per cent success, in those cases which were available for check-up at the end of the year. All classes of women of varying intelligence were included in the experiments. Having watched this method for six years, the author believes that most of the failures were due to carelessness. Some patients after enjoying a long period of protection become over-confident and occasionally dispense with the use of the pessary. Among those who employed a careful technique there were very few failures.

INDICATIONS

All vaginal conditions where the pessary can be fitted and held in place are suitable cases for its use.

CONTRA-INDICATIONS

Marked displacements and prolapse.

Marked relaxation of the vaginal walls, with cystocele and rectocele.

Poor perineum.

Marked obesity.

(In these cases the condom and contraceptive jelly is recommended, or withdrawal and contraceptive jelly.)

Advantages

It is reliable.

Sensation is not diminished except in rare cases.

Neither the man nor the woman is made conscious that a contraceptive method is being used.

The parts come in natural contact to a sufficient extent.
The orgasm occurs in situ and is rarely retarded by this method.
After the orgasms, normal relaxation is permitted.
It has a more universal application than other types of pessaries.

MAXIMUM EFFICIENCY

COMBINATION OF THE DIAPHRAGM PESSARY AND JELLY

The technique of adjusting the diaphragm pessary has just been given, and mention was made of the use of a jelly as a lubricant. Experience in our Clinical Research Department has proved that the best results with this highly efficient type of pessary can be obtained by combining its use with a chemical contraceptive. A jelly has in fact been devised and thoroughly tested which will serve as a lubricant and a spermatocide, described in full in Chapter IV.

If before inserting the diaphragm pessary a half teaspoonful of this jelly is placed in the cup of the pessary, so that when it is in place the cervix will rest in the jelly, this approved diaphragm method will be made doubly secure. In fact, this combination gave the best results in our clinic.

The principle involved here is: The pessary prevents a "direct hit" or ejaculation into the cervical canal, while the acid jelly kills all the sperms much more quickly than would otherwise be possible. *In a word, this combination of the Ramses type of diaphragm pessary with the lactic acid jelly referred to above, provides at least an approach so close to a one hundred per cent contraceptive method as to warrant placing in it a large measure of confidence.*

PRINCIPLES INVOLVED

1. Mechanical occlusion of the os to prevent direct insemination.
2. Contraceptive jelly in the vagina left in contact with semen for a sufficient time to devitalize the sperms before removing pessary,—preferably over night.
3. Douching at time of removal of pessary for hygienic purposes.

CHAPTER IX

Contraceptive Fallacies

AN attempt has been made in the several preceding chapters of this book to give some information on the relative values of contraceptive measures. Not only is information of this kind needed, but it is also valuable as a means of correcting certain false notions, unjustifiable practices, and even superstitions, concerning the practice of contraception. The practice of unwarranted methods by the uninformed and their high percentage of failures have led many to say that contraceptive measures are inefficient and in some instances dangerous. It will be well, therefore, to consider some of these contraceptive fallacies.

THE SAFE PERIOD

A good many persons who should know better, including not a few doctors, share with the public the belief that conception takes place only at certain stages of the menstrual cycle, and that an interval exists during which the woman is protected from the risk of pregnancy. It seems to be commonly supposed that this "safe period" begins about ten days after the menstrual flow ceases and lasts until about four or five days before it begins again. *There is no scientific basis for this theory.* With many healthy women, there appears no interval of security; others, who may for a time appear to have a safe period, sooner or later

find themselves pregnant, unless they use effective contraceptives.

During the World War, a series of cases was studied where German soldiers were at home on leave from two to eight days. Several hundred cases were included in this investigation. One series of three hundred and twenty cases cited by Siegel [1] showed the fertility curve beginning at the onset of menstruation; reaching the peak at the sixth day and remaining there until the twelfth to the thirteenth day; then declining to the twenty-first day. From this day until the onset of the next period, no conceptions resulted. This shows the fertility curve highest just when popular opinion has conceived it to be at its lowest. Other investigators have plotted this curve differently.[2]

Some studies have been made during abdominal section to determine the age of the corpus luteum. Then, by noting the date of the last period, attempts have been made to determine the relationship between menstruation and ovulation. Varying estimates have been given by different investigators, the date of ovulation being placed from the eighth to the eighteenth day after the onset of the menses.

Papinicoloau, Evans [3] and others have shown that in rats and guinea pigs there is a change in the vaginal epithelium and in the quantity of leucocytes in the vaginal discharge before each ovulation. Changes are supposed to be identical throughout the genital tract. Through the efforts of the Committee on Maternal Health a series of tests

[1] Dr. P. W. Siegel, Deutsch *med. Wochenschr.*, 1915, No. 42–3. *Muench med. Wochenschr.* 61, No. 21. Zentrabb. f. gynac., 1921, XLIV, 1984.

[2] Pryll, *Muench med. Wochenschr.*, 1916, LXXXIII, No. 2, 1579. Zangemeister, Arch. f. Gynac., 1917, CVII, 201.

[3] Long and Evans, The Estrus Cycle in the Rat and Its Associated Phenomenon. *Memoirs Univ. California,* 1922.

is now being made in New York City. By the study of vaginal smears and other methods, an attempt will be made to discover the relationship between menstruation and ovulation.

[4] It thus becomes clear that we have as yet no exact knowledge concerning the so-called "safe period."

SUMMARY

Asdell,[5] summarizing the literature on this subject, comes to the following conclusions:

"Curves showing the relation of fertility to the menstrual cycle in woman, drawn from data from a variety of sources, are substantially the same. Fertility is higher in the early part of the cycle, but falls rapidly from the sixteenth to the twentieth day. There is little evidence in favor of a period of complete sterility.

"Differences in the duration of pregnancy, when reckoned from the onset of menstruation and from conception, are interpreted as indicating that the preovulation phase is extremely variable in its length and the postovulation (corpus luteum) phase relatively constant. It is on these lines that an interpretation of variation in the length of the menstrual cycle may be sought.

"*The time of conception is held to have no effect on the sex-ratio.*"

Norman Haire[6] stated that in an investigation cover-

[4] *Safe Period as Birth Control Measure,* Am. Journal of Obstetrics and Gyn., December, 1927.

[5] Time of Conception and of Ovulation in Relation to the Menstrual Cycle. S. A. Asdell, *Journal of the A.M.A.,* Volume 89, No. 7, August 13, 1927, p. 509.

[6] Address before Fifth International Neo-Malthusian and Birth Control Conference, London, *1922 Proceedings.*

ing several hundred cases who trusted in this method, there was failure in over ninety-five per cent of the cases. He also stated that from a practical point of view he had found most couples unwilling to abstain from the fundamental relationship underlying marriage during one-half of every month. The experience in our Clinical Research Department is very similar.

HOLDING BACK

There is a popular notion that if a woman does not experience the orgasm, she will not become pregnant. As a result, many women "hold back"; that is, they assume a passive role and deliberately avoid the supreme pleasure from the marriage relation. It need hardly be said that such a method is more than worthless. The psychic effects of such practice and the disappointment at its failure cannot but lead to a most unhappy outcome.

It is astounding to discover that practically nine women out of ten are influenced by this superstititon. The haunting fear of an unwanted pregnancy causes the frantic wife to resort to all measures. Trained from childhood in the habit of sex repression she easily adds this one after marriage. A great deal of the disappointment and unhappiness of women in the married life is due to this repression of feeling and fear of pregnancy. This passive attitude is often interpreted by the husband as indifference or as a disappearance of conjugal love, thus leading to quarrels and not infrequently to separations. It need hardly be said to physicians that such methods of avoiding pregnancy are worthless. It is known that pregnancy can take place while a woman is unconscious or as a result of a rape which she

has resisted. Anything which will help women to overcome these inhibitions and cause them to enter the marriage relation with more mutually reciprocal confidence and appreciation will be a great contribution to the health and happiness of parenthood.

LACTATION

It has been not only a medical but also a general observation that the incidence of pregnancy is less in nursing mothers than in those not nursing babies. Many foreign-born women in the crowded quarters of our large industrial cities may be found nursing their babies upwards of two years in the attempt to avoid pregnancy. Some women seem to avoid pregnancy for a year or more by nursing their babies. Others, however, become pregnant two or three months after the last birth while still nursing their children. Past experience of a woman is a fair rule which usually holds true. If she can avoid pregnancy for a year or more by nursing a baby, it is likely that this can be done after subsequent births, but this is not invariably so. There is a dearth of real scientific or reliable information on this matter. All the factors causing this decreased incidence are not known. It is also known that all women do not act alike in this matter. But we do know that out of one lot of 1,208 patients who visited our Clinical Research Department, 362 reported that they had tried this method and had sooner or later failed.

INTERNAL MEDICINES

Text books on toxicology list several drugs which are said to prevent pregnancy or to produce early abortion,

but which, if taken in quantities sufficient for those purposes, will prove dangerous to life. Hence, drugs taken internally as contraceptives need not be considered in this book. Many women, when their monthly period is overdue, make a practice of taking emmenagogues such as rue, savin, apiol, quinine, ergot, etc., believing that these will "bring them around." The fact is that if pregnancy has not taken place no medicine is needed, and that if it has, drugs will do little to change matters. In fact, most physicians have known of many drugs being taken in alarming doses without interrupting pregnancy. It is not the province of this book to deal with the subject of abortion. The author only wishes to make clear the fact that medicines taken internally are not only unreliable as abortifacients, but useless in the prevention of conception.

MISCELLANEOUS FALLACIES

The author has met many women who have believed that jumping, running, sneezing, coughing, urinating, or straining in any way, will prevent pregnancy if indulged in immediately after coitus. It is needless to say that there is no foundation whatever for such belief. There are many other equally absurd beliefs and superstitions current. They are interesting principally as indicative of a conscious and earnest desire on the part of a not too intelligent group to regulate the size of their families.

CHAPTER X

Physical and Mental Effects of Contraceptives

IN the preceding chapter consideration has been given to Fallacious Practices. A little attention is now given to Fallacious Ideas concerning contraception. Comment has already been made that there has hitherto been a dearth of scientific information on the subject of contraception. What is meant, of course, is that there has not previously been an adequate study on a sufficiently large number of cases under proper control to make any definite conclusions possible. This does not mean that all phases of the subject have hitherto been absolutely neglected; for many investigators have made observations on related studies which throw some light on this subject.

It is absurd, however, under these circumstances for anyone, who may have a traditional or emotional attitude against having contraception prescribed for any cause whatever, to come forward with unwarranted, unproved statements and expect thinking people to accept them. It is equally deplorable to hear physicians, who are as a rule devoted to the scientific attitude of demanding facts, repeat without question the unwarranted and unqualified statements that contraceptives are injurious. A brief space only will be devoted to an enumeration of a few of the most frequently repeated of these fallacies concerning the physical and mental ill effects of the use of contraceptives.

There is nothing quite so misleading as a half truth. The fact is, of course, that it is possible to adopt measures for the prevention of pregnancy which will be injurious. It is also possible, however, to select measures which will be harmless as well as effective. This is quite true, moreover, with regard to food, habits of life, and other essentials of human existence.

POSSIBILITIES OF PHYSICAL DISTURBANCES

CONTRACEPTION AND STERILITY

One of these unwarranted statements is that the practice of contraception leads to sterility. The fact is that women, who for one reason or another are unable to avail themselves of medical advice, may in their desperation and ignorance resort to unnatural methods. During the reading of an excellent paper by Dr. Cary of Brooklyn, at the American Medical Association meeting at Dallas, Texas, 1926, on the subject of sterility, he mentioned the use of an intra-uterine stem pessary as a cause of sterility. The point was well taken, and that type of pessary is condemned in Chapter III of this book. The author at the time wished to take the opportunity to express his agreement with Dr. Cary in the matter and also to call attention to the obvious fact that there were other methods of contraception which might be resorted to without such unfavorable results. The discussion from the *Journal of the American Medical Association* is therefore quoted in full.

Dr. James F. Cooper,[1] New York: "I wish to call attention to the relationship between the use of contracep-

[1] *Journal of American Medical Association*, Vol. 88, No. 1, Jan. 1, 1927, p. 12.

tives and sterility. There is an impression in some quarters that the use of contraceptive measures *per se* is a cause of sterility. This, I feel, is one of those generalized statements which has never been substantiated and which is very misleading. The use of intra-uterine stems, as spoken of by Dr. Cary, can well be conceived as being a cause of sterility because of the irritation, the erosions and resulting infection to the uterine body and the tubes caused by maintaining for a long time the patency of the cervical canal. Also, it happens that some women who are driven in their desperation to use contraceptive methods will use some very irrational thing, such as a mercuric chloride tablet, even without any dilution. Such cases have been reported, and have had a rather serious outcome.

"The adoption of any other ill-advised method recommended by a friend may have been a cause of sterility; but the point I wish to bring out is that contraceptive measures *per se* are not necessarily a cause of sterility, and that there are many methods which have been used over long periods of time without having any sterility following their use. This statement is based on observation of more than 5,000 cases in the Birth Control Clinic of the American Birth Control League Research Department, in New York. There is other information from many sources in Europe where contraception has been practiced for a long time showing that there are rational methods of contraception which do not result in sterility and which under medical prescription and supervision are perfectly safe to use from this standpoint."

Many of the patients who come to our Clinical Research Department simply want to space their children properly, allowing a sufficient time for recovery from child-birth be-

fore undertaking another pregnancy. After a sufficient lapse of time during which they practice contraception, varying from one to two years, they discontinue the method and readily become pregnant again,—often in the first month.

We are in touch with many women who have fine large families for these days (five to seven children) who tell us they were all voluntary and planned for.

A certain percentage of all human matings are sterile from congenital or birth defects or lack of development like infantile organs or lack of delivery of the ovum or live sperms. Such people often marry and decide that they cannot afford children during the first few years of married life and therefore practice contraception by some method. Then later, having concluded that the time for child-bearing has arrived, they discontinue their birth-control method. Finding no pregnancy resulting, they naturally infer that a sterility had been caused by their contraceptive practice.

William J. Robinson [1] quotes such a case. The young couple came to him and blamed the methods they had used for the sterility of the union. Upon examination the man was found to have azoöspermia, and therefore could not have impregnated his wife.

In a word, CONTRACEPTIVES *per se* ARE NOT A CAUSE OF STERILITY.

CONTRACEPTION AND CANCER

Erroneous ideas concerning contraception and cancer are also prevalent. Much of what has been said on contraception and sterility applies here. Already the fallacy of *Contraceptives as a Possible Cause of Cancer* has been con-

[1] ***Limitation of Offspring.*** **Robinson, p. 71.**

sidered under the subject of "Coitus Interruptus," p. 105. It may be repeated here, however, that there has never been any convincing proof brought forward by anyone to show that contraceptives cause cancer. As a matter of fact, millions of dollars are being spent annually and some of the best medical talent is being devoted to find a cause and possible cure for cancer. In view of this fact, how absurd are these vague theorists who without any convincing clinical evidence glibly speak of contraceptives as a cause of cancer! Diet, germ infection, and all sorts of theories have been advanced as a cause of cancer. The ultimate cause, however, remains unknown.

Whether, for example, the pessary is used for the correction of displacements or for contraception, the mechanical effects will be the same. The relationship of vaginal pessaries as a cause of cancer was summed up by Weiss [1] as follows:—"Were irritation and ulceration necessary for the production of cancer of the cervix, surely as pointed out by Sir John Bland-Sutton in his classic work on 'Tumors, Innocent and Malignant,' the pessary would be a chief cause." He mentions several cases of long-forgotten pessaries, and states that patients were examined under the impressions that they were suffering from advanced cancer and none was found.

CONTRACEPTION AND INFECTIONS

Claims have been frequently made that contraceptives cause infection of the vagina and uterus. This may have been true of a soft rubber pessary left in position a month at a time as originally recommended by Mensinga. It may

[1] Samuel Weiss, M.D., *Some Considerations of the Cancer Problem.* American Medicine, February, 1928, page 109.

have been true when uterine stems were used. It may have been true also when any ill-advised or self-prescribed irrational method was used. It cannot be said, however, that the method and technique of any of the modern clinics lead to infections. It must not be assumed that the vagina is always sterile so that infection of a non-venereal character cannot be carried by the penis in normal intercourse. As a matter of fact, the use of antiseptic douches and contraceptive chemicals may tend to cure infections. The rubber diaphragms described in Chapter VIII may be used instead of tampons to hold medicaments against the cervix, and in this case they may be considered as therapeutic agents.

POSSIBILITIES OF PSYCHIC DISTURBANCES

The psychic elements in the sex life are so essential and powerful that it is impossible to discuss the subject of contraception without giving them some consideration. A book of this kind, however, is not the place to enter into the details of this important matter. Attention can only be called to the general aspects of the subject.

EFFECTS ON THE WOMAN

On account of absence of information about sex life, or the possession of misinformation, many young women arrive at the marriage day in the densest ignorance. In the ignorance of a bygone day, this was considered the ideal condition in which to enter marriage, and is still so considered by too large a percentage of our people.

The series of revelations and shocks which has come to many young women during the first few days of married life has created mental attitudes of an undesirable nature

from which they have never recovered. Besides this group of uninstructed women, there are those who have a native delicacy and reticence, who shrink from any physical examination by a physician, even of the most general character. Naturally these women have some feeling of revulsion against using any contraceptive. This means that the husband must use the condom, coitus interruptus, or continence. After a time there is usually a revolt and the woman is asked to "do her part,"—meaning that she is to adopt some contraceptive measure; or if nothing is done and pregnancy results, and there should be some sound health or urgent economic or other obvious reason for her not becoming pregnant, she learns to overcome her timidity. It is very seldom that women who have had children and feel that they should not become pregnant again, for the time at least, have any aversion. When the aversion to an unwanted pregnancy becomes strong, the aversion to preventive measures tends to disappear. THE FEAR OF UNWANTED PREGNANCY DOES MORE PSYCHIC DAMAGE THAN DO ALL THE REACTIONS AGAINST PREVENTIVES.

EFFECTS ON THE MAN

The chief considerations on the part of the man who practices contraception are usually those concerned with the health and happiness of his wife and with his ability to take care of the children. Where psychic or neurotic disturbances are discovered in a man and there is any relation to contraceptives, it is usually not due entirely to anything in the methods (although this may be questioned), but is usually owing to an anxiety that the measures used may not prove effective. The blunting of sensation caused by

a condom is annoying to some men and often they revolt against it after a time. The breaking of contact by "withdrawal" in those who practice coitus interruptus, so that that fullest enjoyment of the orgasm is never experienced, is also very trying to some men. These are conditions that must be reckoned with.

Whatever the reactions of a man to these conditions may be, they are usually not nearly as powerful as the dread of seeing his wife enter a pregnancy which he knows, or feels, she cannot endure, or to see his family grow beyond his ability to provide for. Thus the haunting fear that his wife will suffer, or that she will have more children than he can provide for, will do more to upset the health of the average man than can any likely contraceptive practice. In other words, a safe and satisfactory contraceptive would do much to relieve people of this kind from their troubles.

CHAPTER XI

The Beginnings of Scientific Investigation of Contraception

BESIDES all that has been said about the medical indications for contraception, the social aspects of this problem are so obvious and insistent that they can no longer be ignored by the medical profession.

Modern women desire to have their children voluntarily and intelligently, and there is an increasing demand upon the physician for ethical, scientific and reliable information. Little or no attention has been paid to the subject of contraception in our medical schools and there is an inadequate literature on this subject.

Founding of Clinical Research Department

The American Birth Control League was the natural place for people, including thousands of doctors, to apply for this information. The League was unwilling simply to recommend methods which had no scientific justification, which were reputed to be injurious, or which were being exploited by commercial interests. The entire field was chaotic. So far as known no investigation had previously been made with any considerable number of cases running over an adequate period of time, under proper medical supervision, and with strict check-up of results on all cases at the end of the testing period. There were many contra-

ceptive clinics in various parts of the world, but none with the above qualifications. In other words, most of the clinics were organized primarily to give contraceptive information to needy mothers, and usually one routine method was adopted. The collection of data was secondary or was disregarded entirely.

The Clinical Research Department of the American Birth Control League, referred to many times in this book, was founded in January, 1923, by Mrs. Margaret Sanger as an independent entity, closely affiliated in personnel and inter-cooperation with the League. Early this year (1929), however, it became a completely separate organization, and is now known as the Birth Control Clinical Research Bureau, with Mrs. Sanger as its Director.

This Research Bureau has been interested primarily in discovering the relative values of all known contraceptive methods, especially those in common use, and in undertaking experiments in any new methods which gave promise of success. In recent years it has increased greatly in scope and efficiency. More than 10,000 cases have been advised to date, and several hundred physicians from all parts of the United States have visited the Bureau to observe its work. *Physicians are always welcome and everything is done to make the visit a profitable one.*

The principles, policies, and general activities of this Clinical Research Bureau are decided by the following Committee:

E. M. East, Ph.D., Professor Biology, Bussey Institute, Harvard University.
C. C. Little, Sc.D., President, University of Michigan.
John Favill, M.D., Psychiatrist, Chicago, Ill.

Leon J. Cole, Ph.D., Professor Genetics, University of Wisconsin.
Adolph Meyer, M.D., Professor of Psychiatry, Johns Hopkins University.
John Solley, Jr., M.D., Physician, New York City.
Benjamin T. Tilton, M.D., Physician, New York City.

MANAGEMENT AND PERSONNEL OF RESEARCH BUREAU

The Clinical Research Bureau is conducted entirely by physicians, who interview and prescribe for every patient and see them on return visits. This has at all times been the rule, and there have been no exceptions.

ADMINISTRATION AND EQUIPMENT

The administration and supervision of the Clinic was carried out until January, 1929, by the Medical Director, Dr. James F. Cooper, the author of this book. Dr. Hannah M. Stone is now Medical Director, and she is assisted by five other physicians, with five trained nurses in attendance. The Bureau was formerly connected with the offices of the American Birth Control League at 104 Fifth Avenue, but later was moved to its present quarters at 46 West 15th Street. It consists of ten rooms as follows:

Two reception and general waiting rooms.
Two history rooms where social and general histories are taken by a nurse.
Two doctor's consultation rooms to which the patients are admitted after the general history is taken. Medical and sex history is taken by the doctor and if the case proves suitable, the patient is referred to one of the

two examining and treatment rooms and is there prepared by the nurse for gynecological examination.

Four treatment rooms are fitted with the necessary equipment, including tables, sterilizer, gloves, instruments, wash-stand, and the ordinary equipment for gynecological examinations and treatments.

All patients are seen by appointment. On first arrival, if the case seems a proper one, the history is taken by the head nurse. This history is then sent to the physician's consulting room where the patient is interviewed. If the interview is satisfactory, the patient is sent to the examining room where she is placed on the examining table by the nurse. The doctor then examines and prescribes the method best suited to the particular case. She is then thoroughly instructed.

FOLLOW-UP PLAN OF THE CLINIC

I. After instruction, all patients are given definite appointments to return in one week for a check-up on technique and are told not to rely on the method until such "check-up" is made.

II. 1. On the first return visit, the patient is recorded as "old case" checked.

2. On failure to return in due time, a form letter is sent asking the reason for not returning and requesting the patient to make a new appointment.

3. If there is then no satisfactory response, a home visit is made and the patient is urged to return and data are collected.

III. 1. At the end of six months all patients are notified routinely to report results on forms supplied, and to make appointment for a revisit.

2. If the above attempt is unsuccessful or unsatisfactory a home visit is made and data are collected.

IV. 1. At the end of one year, all patients are notified routinely to report results on forms supplied, and to make appointment for a revisit.

2. If the above attempt is unsuccessful or unsatisfactory, a home visit is made and data are collected.

It will be seen that patients are thus thoroughly instructed and followed up for a full year, which is taken as a proper and adequate testing period.

DIFFICULTIES OF STATISTICAL VALUATION

In contraceptive research it is difficult to reduce findings to figures which will be informing without being in some degree misleading. The results must be stated in general terms subject to more or less qualification; they cannot be formulated statistically with absolute accuracy. The factors involved are too diverse and too variable. This will be seen when account is taken of the wide range and extreme variability of the conditions governing pregnancy.

The fertility curve, beginning its rise at puberty, reaches its apex at about the age of thirty and then declines to its termination at the menopause. It is decidedly influenced by diet and general health and it varies with the menstrual cycle.

The incidence of pregnancy is governed also by the frequency of coitus. Very infrequent intercourse lessens the incidence, while over-indulgence seems to tend toward sterility. Normal frequency,—that is, two or three times a week,—makes for the greatest incidence.

Pelvic congestion and altered secretions markedly affect fertility. From the anatomical standpoint some women

are poorer contraceptive risks than others because, for example, of prolapse of the uterus with relaxed pelvic floor, or of marked uterine displacements.

Manifestly, then, it is a futile task to attempt to evaluate statistically with absolute precision the contraceptive methods employed when the cases are subject to so many adventitious factors.

It is the author's opinion that the judgment of observers as to the best general methods for special cases will prove to be far more reliable than figures whose value may in some degree be doubtful. This procedure in no wise precludes the scientific method of investigation; it merely permits an interpretation less rigid than the statistics allow of the data afforded by research and experiment.

From the foregoing one may realize that no matter how careful the investigation of contraception may be and regardless of how much care is expended on the collection of statistical data, absolute precision is impossible. Nevertheless, in order to convey some adequate sense of relative values, figures must be used. It may therefore not be out of place to state the sense in which these were used in the Research Department.

DEFINITION

Successes—Patients known to have children and to have used the method prescribed continuously and exclusively for one year without conceiving will be recorded as successes.

Failures.—Patients known to have used the method prescribed continuously and exclusively but who have conceived within a year will be recorded as failures.

It frequently happens that patients who have the utmost confidence in the method prescribed will for one reason or another occasionally use a condom, withdrawal or douche. This very occasional brief lapse probably does not affect the final result. If it did the percentage of failures would presumably be higher.

NUMBER OF CASES PER SERIES

In carrying on contraceptive research, besides giving each case a sufficient time to thoroughly test the method, there should be a sufficient number of cases observed so that a good idea of the average experience can be obtained. The author suggests that three hundred cases continuing to the end of one year will give a fair idea of the value of any method. Therefore the test should be:

1. The mating known to be fertile.
2. The woman continuing to use the method prescribed continuously and exclusively for at least one year.
3. At least three hundred such cases should be reported.
4. The total number placed on experiment should be reported and data given to explain the difference between this total number and those continuing to the end of a year.

DEFINITION OF PERCENTAGE OF SUCCESS

It will be seen from the following tables that it is impossible to get complete follow-up work on all cases which have been advised. Many patients live in distant states

and seek advice only while they are in New York. Others live in adjacent territory too remote for the social worker to call upon. Also our patients move frequently, thus becoming lost to our records. If these people do not report back in person or in response to letters, or if we are unable to reach them through the social visitor, we are unable to count them on our tables of success or failure, and this class includes a large number. To include this group in the report as either successes or failures would obviously be misleading. They are therefore excluded.

Another group needs to be considered,—those who were advised and for one reason or another discontinued the use of the method prescribed before the end of one year. Reasons given by these patients for discontinuing the method will be found on page 183. These also can not well be included in the total upon which statistics of effectiveness are based as they would obviously be misleading. This group therefore is also excluded. Statistics of percentages are based only on facts ascertained at the end of one year. For the reason that so many have to be excluded, there is an inclination simply to quote all these figures and not mention percentages, thus permitting each reader to draw his own conclusions. One is continually looking, however, for something tangible with which to make comparisons of relative merits and it is for this reason and in this general way that the terms percentages of failure or success are used.

(NOTE: These definitions of Success, Failure, and Percentages explain these terms as they are used by the author in this volume. In view of the widespread interest in the establishment of new clinics, it is hoped that they may be suggestive to those undertaking new work in this field, and that the following comment on the personnel of a clinic may also be helpful.)

SHOULD CLINICS BE STAFFED BY MEN OR WOMEN PHYSICIANS?

The Clinical Research Bureau has been staffed by both men and women physicians. Occasionally a patient appears who has a decided preference for a woman doctor. In general, however, there seems to be little preference. All clinic sessions are equally well booked. The experience in this matter is probably about the same as in any gynecological clinic. Many of our patients have already discussed the matter with their family physician. There is no good reason, therefore, why a contraceptive clinic cannot be conducted efficiently by a male staff, although a mixed staff would seem to be the more desirable. This statement applies, of course, to the United States. An impression exists that male staffs are impossible in England, and that it is impossible for them to collect the intimate sex data which have been gathered during the past six years in our Clinical Research Bureau. A survey recently made of the personnel of all the American clinics reveals that men and women are represented in about equal numbers.

CHAPTER XII

First Extensive Research in Contraception—1923–1924

Clinic Report for 1924

THE Birth Control Clinical Research Bureau of the American Birth Control League was the pioneer clinic in America, and is still the largest clinic in this country. It conducted the first series of clinical experiments in contraception accompanied by case histories and follow-up work to ascertain the end-results.

Even during its first year (1923), there was great demand for information concerning its research work. When the first report was published in February, 1924, the edition of 10,000 copies was soon exhausted to meet requests from physicians in every State in the Union. This report was preliminary in that there had not been sufficient time to judge and estimate accurately the full effects of the methods recommended. Also there was inadequate follow-up work and the series did not include enough cases. However, many clear impressions were gained and some valuable data gathered. That these impressions were well founded, will be seen in the later reports. In fact, the methods which at that time gave the best impression have since proved to be the best by test.

One of our objects has been to obtain information concerning the relative values of contraceptive methods in common use. Accordingly, all patients have been asked the following questions:

"Have you used any methods before coming to the Clinic?"

"If so, what did you use?"

"How long did you use it?"

"What were the results?"

In this manner, a report was compiled which was based on data gathered from 1,208 consecutive patients. Two-thirds of these had previously used contraceptive measures. From the table on page 173, the reader may gain an excellent idea of current practices drawn from interviews with these patients, and the results they had obtained from the use of different contraceptive methods before coming to the Clinic.

CONTRACEPTIVE RESEARCH METHODS

More than 1,000 cases were divided into fourteen groups or series. These were placed on different methods and combinations of methods. They were then continued a sufficient length of time to enable us to get a general idea as to which were the most likely methods worthy of continuing in a further extensive study, and which were of the least value and not worthy of extended research.

A study of the table on pages 174 and 175 will show that Series VI of the Report for 1924 gave the best results. Although other experiments have been carried on, this obviously successful series has received the greatest attention, and there are now more than 3,000 cases fully recorded on this method alone.

Current Contraceptive Practices of Clinic Women Before Visiting the Research Department [1]

METHOD	PER CENT USED	PER CENT OF FAILURE	COMMENT
Douche	60	100	Inconvenient
Douche and Chemicals	50	90	Inconvenient
Condom	42	50	Diminished sensation
Coitus Interruptus.	40	....	Pathology overestimated
Nursing Baby	30	100	
Holding back	30	100	Mistaken belief
Suppository	12	70	67% were successful 8 months to three years
Mizpah pessary and French	10	100	Difficult to apply Easily displaced
Powder	5	100	Inserted with blower
Sponge	4	100	Interferes if large Displaced if small Dirty
Permanent pessary	2	60	Produces early abortion and infection
Jelly	1	100?	Good results in selected cases
Tablets	(2 cases)	100	Good results in selected cases
Effervescent tablets	(3 cases)	none	
Continence	4	none	One had "lost husband" through infidelity

[1] Taken from pages 4–7 of the Report for 1924.

(NOTE: The percentage of methods used was much greater than one hundred, because most patients had each used two or more methods.)

EXPERIMENTAL SERIES—REPORT FOR 1924

NATURE OF METHODS	NO. OF PATIENTS	TIME USED MO.	FAILURES PER CENT	CONCLUSION REACHED
Series I:				
Mizpah Pessary and Douche (plain water plus lysol, bichloride, or boric acid)	100	4	10	Discontinued—few still in use
Series II:				
French Pessary and Douche (the douche being the same as used in Series I)	100	4	10	Discontinued—few still in use
Series III:				
Modified French Pessary and Contraceptive Jelly (K-Y and lactic acid)	50	4	6	Discontinued—few still in use
Series IV:				
Ramses Pessary and Douche (the douche being the same as used in Series I)	150	6	4	Discontinued
Series V:				
Ramses Pessary and Suppository (cocoa butter and quinine)	150	6	4	Discontinued
Series VI:				
Ramses Pessary and Contraceptive Paste (Irish moss plus boric acid plus chinosol)	200	2 to 12	2	Desirable
Series VII:				
Contraceptive Paste: Irish moss / or / gelatine / or / tragacanth + chinosol + boric / or / lactic / or / acetic	200	2 to 12	3	Desirable

EXPERIMENTAL SERIES—REPORT FOR 1924 (*Continued*)

NATURE OF METHODS	NO. OF PATIENTS	TIME USED MO.	FAILURES PER CENT	CONCLUSION REACHED
Series VIII:				
Effervescent Tablet (Boric acid, salt, chinosol, etc.)	200	2 to 5	3	Desirable
Series IX:				
Ramses Pessary and Tablet (The tablet is the same as used in Series VIII).....	200	2 to 5	2	Desirable
Series X:				
Mensinga Pessary and Douche (as used by Norman Haire, M. B.).....	50	2 to 4	6	Discontinued
Series XI:				
Mensinga Pessary and Paste (The paste is the same as used in Series VII).....	30	2 to 5	none yet	Still in progress
Series XII:				
Mensinga Pessary and Tablet (The tablet is the same as used in Series VIII)..	20	2 to 5	none yet	Still in progress
Series XIII:				
Ramses Pessary and Suppository (Cocoa butter, boric acid and chinosol)..	5	This series just started		
Series XIV:				
Jena "Frauenschutz" (Permanent pessary made of Jena glass and gut).....	3	This series just started		

Summary of Report for 1924

Series VI

The Ramses Type of Pessary with Contraceptive Jelly gave the best results, and this series has been continued. In fact, this series has been enlarged and several different formulae of jelly have been used to discover if there was any difference in their chemical values.

Series VII

The use of *Contraceptive Jelly Alone* gave good results and has also been continued. Several different formulae have been used.

CHAPTER XIII

Second Extensive Research in Contraception
Clinic Report for 1925–1926

THE series which gave the best results in the tests recorded in the Report for 1924 have been continued. The following statistical data are based upon the Annual Report of the Clinical Research Department for 1925, which has been corrected to January 1, 1927. This report, appearing originally in the *Medical Journal and Record* of March 21, 1928, under the title of *Therapeutic Contraception*, was prepared by Hannah M. Stone, M.D., of New York City, who is Chief of Staff of our Research Department. Dr. Stone prescribed personally for all the cases in this series, so that there were uniform conditions in conducting these experiments so far as the Research Department is concerned. The cases in this series continued under observation for periods of from one month to two years.

So far as known, this is the first and only report on the subject of contraceptive methods which is based on an adequate number of clinical cases, supported by case histories, and followed up for a sufficient length of time to ascertain the end results.

The summary of results contained in this report are recorded briefly on page 187. So far as statistical evidence is concerned, this summary presents the most successful temporary contraceptive measures known at present. It is felt, however, that this is by no means the final word in the

matter, and it is hoped that, as a result of further study in our own research work and in other American and European clinics, simpler and even more effective measures may be developed. It is quite possible also that laboratory experiments now being carried on and mentioned in Chapter VI may make valuable contributions.

On pages 179 and 180 will be found a facsimile of the record card upon which contraceptive data were recorded. A statistical table is also given showing the total number of cases admitted into the clinic during the year and summarizing the results for all methods combined (see page 181). This table is followed by explanatory notes.

In order to avoid unnecessary details, another table has been prepared which presents only the *principal methods* used, and they also are analyzed so as to set forth the differential results, and are likewise followed by explanatory notes.

This same procedure of presenting statistical tables with explanatory notes is adopted later in this chapter in recording the results of subsequent follow-up work and in commenting on the studies in the social and sex life of clinic patients. It is followed also in Chapters XIV and XV, in presenting the Clinical Reports of the Illinois Birth Control League and of the Los Angeles Mothers Clinic, as well as in describing the work of the Committee on Maternal Health, New York, and of the leading clinics of England.

All these statistical tables and the explanations which follow them are presented for two main purposes: to give corroborative evidence of the effectiveness of the more successful contraceptive measures employed in our Clinical Research Department, and to provide helpful suggestions for possible use in other clinical investigation.

FACSIMILE OF RECORD CARD (REDUCED) USED IN RESEARCH DEPARTMENT (FRONT)

SOCIAL HISTORY

NAME .....Case No.....
ADDRESS .....Date.....
Referred by .....
Reason .....
Nationality .....Religon.....
Husband's occupation.....Permanent.....Trade unionist.....
Husband's health..... Habits.....
Husband's income..... Wife's..... Other.....
Her education..... Intelligence.....

SEX HISTORY

Age.....Age at onset menses.....Present character.....
Last period.....Years married.....Age at 1st pregnancy.....
No. living children and ages.....No. dead children and ages.....
No. Miscarriages.....At what month in pregnancy.....
Therapeutic..... Accidental..... Self-induced.....
Character of labors..... Fertility.....
Contraceptives used and how long.....
Results .....
.....
Frequency of coitus.....Do menses affect desire.....
Is orgasm experienced.....
Attitude toward coitus.....

PHYSICAL EXAMINATION

General .....
.....
Pelvic .....
.....
Laboratory reports .....
Signature.....

RECORD CARD (REVERSE SIDE)

TREATMENT

Reason for giving contraceptive advice.....

.....

Reason for refusal.....

Method recommended .....

.....

Dates of return visits and notes	

TOTAL OF ALL CLINIC CASES—1925

Admitted		1,655
Not advised	198	
Advised		1,457
Advised twice (two methods)	12	
Total cases		1,469
Not reporting	336	
Reporting		1,133
Not using method	174	
Using method		959
Not a success	43	
Doubtful	8	
Failure	35	
Successful total		916
Percentage of success with *all* methods		95

No record was kept of the number of those who applied and were not admitted. These data are now being kept.

In twelve cases the method was changed during the year. They are therefore counted twice.

The reports of eight patients were so vague and indefinite they could be classified neither as failures nor as successes.

ANALYSIS OF CLINIC REPORT FOR 1925

CASES ADMITTED

The total number of cases admitted was 1,655. A great many people applied for advice who for one reason or other were not acceptable as cases, and the nurse in the outer room so advised these applicants, who were not ad-

mitted. Even with this weeding out, 198 were admitted who upon consultation with the physician were found to be unsuitable for advice. The principal reason for refusal was "no health reason." [1] Other reasons were as follows:—Many patients who were pregnant did not recognize the difference between abortion and contraception until it was explained; some women merely applied for sex information, not knowing where else to go; and a few were too ignorant to understand or make intelligent use of any instructions.

NUMBER ADVISED AND METHODS USED

A total of 1,469 patients were advised in one or more of the following methods:

Contraceptive jellies.
Pessaries—cervical cap or diaphragm.
Combination—contraceptive jelly and pessary.
Miscellaneous—condoms, effervescent tablets or suppositories.

Follow-up work consisted of these three steps:

Requesting patients to return.
Periodic questionnaires.
Home visits by family visitor.

RESULTS AT THE END OF ONE YEAR

No Reports

A total of 336 patients did not report. Mail was returned from 114 indicating that the patient had moved. This is not surprising considering the large floating popula-

[1] The New York law will not permit the giving of advice except for the cure or prevention of disease.

tion in New York City. No reply was received in answer to the questionnaire from 222 patients, who were not reached because the patients lived too far away to be followed up by home visitation, often in another state. In fact, people from all over the country have come to the Clinic for advice.

Patients Reporting

Of the total of 1,133 who reported, it was found that 174 were not using the method recommended. *The following reasons were given by patients in this group for not using the advice which they had requested.*

Lack of confidence—44

Sometimes on the wife's part.

Sometimes the husband would not trust his wife with any method.

Objection to treatment—43

Too troublesome.

Lack of necessary privacy or toilet facilities.

Method uncomfortable.

Illness—15

Surgical operation or sterilization, etc.

Separation from husband—10

Death—One in Institution—Domestic trouble.

Causes unknown—62

These patients gave no clear reason for not employing the method prescribed.

Number Using Method

When the 174 cases listed as not using the method are deducted from the number who reported their results, it

leaves a total of 959 who continued to use the method recommended.

Unsuccessful

The known failures were thirty-five. The eight doubtful were grouped with the failures under the heading unsuccessful, making a total of forty-three.

Successful

The total number of successful cases was 916. *The percentage of success with all methods was 95.*

ADEQUATE TESTS

We have been discussing the total results of *all methods* prescribed in 1925. A detailed analysis of the report shows that not all those who reported had been using the method for a full year. The 916 successful cases were divided as follows:

Under six months	153
Six months to a year	323
One to two years	393
Two years and over	47

The 153 who reported for periods of less than six months were in two groups. One group discontinued for various reasons, but not because the method was unsatisfactory. Patients in the second group have not been heard from recently, and are still being followed up. Since this short time is inadequate as a testing period, a table is presented which records cases continuing from six months to two years, and which deals only with the *principal methods* used.

ANALYSIS OF VARIOUS CONTRACEPTIVE METHODS ACCORDING TO RESULTS REPORTED IN CASES ADEQUATELY TESTED

Methods	Total Advised	Reported Used		Test Inadequate: under Six Months	Results with Methods Adequately Tested as to Time						
					Total	Number				Per Cent	
						Not a success			Success, six months to two years	Doubtful or failure	Success, six months to two years
		Number	Per Cent			Total	Doubtful	Failure			
Grand total	1469	959	65	153	806	43	8	35	763	5	95
Total principal methods	1292	832	65	138	694	37	7	30	657	5	95
1. Ramses with jelly	938	608	65	98	510	21	5	16	489	4	96
Formula V	568	343	60	73	270	11	4	7	259	4	96
Formula I	267	182	68	16	166	5	0	5	161	3	97
Formula II	103	83	80	9	74	5	1	4	69	6	94
2. Jelly alone	354	224	63	40	184	16	2	14	168	9	91
Formula I	136	83	61	15	68	7	0	7	61	10	90
Formula V	109	62	56	17	45	6	2	4	39	13	87
Formula II	61	46	79	3	43	1	0	1	42	2	98
Formula III	48	33	69	5	28	2	0	2	26	7	93
Total of all other methods	177	127	72	15	112	6	1	5	106	5	95

FORMULAE OF JELLIES USED

Jelly No. 1

Boric Acid
Chinosol
Glycerine
Tragacanth

Jelly No. 2

Boric Acid
Chinosol
Glycerine
Irish Moss

Jelly No. 3

Boric Acid
Acetic Acid
Chinosol
Glycerite of Starch

Jelly No. 4

Boric Acid
Glycerite of Starch

Jelly No. 5

Boric Acid
Lactic Acid
Glycerite of Starch

RESULTS IN ADEQUATELY TESTED CASES

The total number of cases in this series, extending over periods of from six months to two years, was 806. The percentage of success with all methods was 95. The total cases tested with the Ramses Pessary and Jelly was 694, and the percentage of success was 95. The best results were obtained with Ramses Pessary and Jelly No. 1, which gave 97 per cent success.

When we consider jelly alone, we find that in a series of 164 cases there was 91 per cent success. The best results were with formula No. 2, which gave 98 per cent success, and the poorest results were with formula No. 5, which gave 87 per cent success. Since each of the series had less

than 100 cases and the total was only 184, the numbers are inadequate and it is impossible to draw definite or final conclusions. This series is being continued and later reports should show adequate numbers from which very definite conclusions may be drawn.

A summary of the statistical data presented for the six months to two years period shows:

	Cases	*Successful*
All methods	806	95%
Ramses Pessary with Jellies.....	510	96%
Jelly alone	184	91%

Method Showing the Best Results

The Ramses type pessary with contraceptive jelly (various formulae),—average success, 96 per cent. *This may be considered as the summary of the results of our Research Department for the past five years in so far as our tabulation of cases is concerned.* Clinic Reports of the Illinois Birth Control League and of the Los Angeles Mothers Clinic Association, give further evidence of the effectiveness of the methods which have proved most successful in our own Research Department (see Chapter XIV).

These figures are considered gratifying, particularly because they are based on *known results*, all cases which were doubtful for any reason whatever being classed as unsuccessful. In fact, this percentage of success is much higher than has been supposed possible by the majority of physicians who have not been in touch with recent experimental work along these lines. When the following tables are consulted, and when it is noted that an unusually large proportion of these patients were foreign-born and belonged

to the lower strata of society with limited intelligence, the average of 96 per cent of success of these patients seems more remarkable.

As already pointed out, these results were obtained by a single physician who was skilled in applying contraceptive methods. Many physicians fail in this field because of the off-hand manner in which they give advice to their patients. Any physician who will take the time to inform himself in the principles of contraception and will give proper time and care to fitting and instructing his patients, can expect approximately the same good results which have been obtained at the Research Department.

COMMENTS

Effects on subsequent fertility, after using the contraceptive methods prescribed at the Clinic, were nil in so far as our experience goes to date. Thirty patients, after using the methods for varying periods and then desiring pregnancy, became gravid almost immediately on discontinuing their use.

Effects of contraceptives on health have been a subject of inquiry. In the five years of clinical experience, no case has occurred where there has been any injury from the use of any method prescribed at the Clinic. A slight irritation from lactic acid or other jellies was occasionally reported by a patient who was sensitive; and this was corrected immediately by placing the patient on another formula. On the other hand, the health of many women has been much improved by the use of contraceptives. This matter is dealt with in Chapter X.

The chief cause of failure was carelessness. Most of

the patients who failed had not followed the simple directions given to them. On the history sheets of six of the failures, a note had been made at the first visit that the patient had an indifferent attitude.

By referring to Series VI and VII of the Report for 1924 (Chapter XII), the reader will find that they gave the best impressions. They have, therefore, been continued down to date (March, 1928), and have fully justified the impressions announced in the Report for 1924 that they were the best methods. This series is being continued until a much larger number of cases has been recorded and end-results checked up at the end of one full year.

RESULTS OF FOLLOW-UP WORK—1926–1927

Unfortunately, it is not possible to include in this book an outline of the formal Report for 1926 to add to the Reports for 1924 and for 1925 presented in the two preceding chapters. Because clinic cases must be allowed to continue under observation for one full year before all essential data are available for analysis, the Clinic Report for 1926 cannot be arranged in final form until a later date this year (1928). When this Report, including the complete follow-up work of cases extended to January 1, 1928, is arranged and printed, this third Report will be available to physicians and scientists who request it.

However, a brief résumé is presented in this chapter covering the results of the follow-up work, including more than 1,000 questionnaires and 300 family visits. It is presented, first, in order that some idea may be gained of the task involved in collecting contraceptive data; and,

secondly, because it may be of interest to those who are associated with clinics where contraceptive advice is given, and who will welcome the results of the experience of others in this new field.

FACSIMILE OF FORM LETTER

CLINICAL RESEARCH DEPARTMENT

American Birth Control League, Inc.
46 West 15th Street
New York City

Telephone CHELSEA 8904
Cable Address: *"Sangatrel"*

Dear Madam:

In order to get the best results it is very desirable to report back to this department every six months. We have not heard from you in that time. Please call Chelsea 8904 for an appointment. There will be no charge for this visit.

In order to save time, will you also please answer the following questions and mail this letter to us.

1. Are you using the method recommended?

2. If not, why?

3. How long did you use it?

4. Was the method successful?

5. Is your married life happier? If so, how?

Very truly yours,
AMERICAN BIRTH CONTROL LEAGUE, Inc.

James F. Cooper

Medical Director,
Clinical Research Department.

Attention has already been called to the method of follow-up work. All patients not reporting back in six months after the "check up" visit, receive a form letter with a self-addressed stamped envelope for reply. A copy of the letter is given on the opposite page. The statistical data collected on these questionnaire letters are recorded upon the history cards and become part of the permanent record. The following tables present an outline of the follow-up work on the 1925 cases.

RESULTS OF QUESTIONNAIRES

Number mailed		1013
Number returned by P. O.	52	
Number answered	325	
By mail 156		
In person 169		
Unanswered	636	
Total	1013	

RESULTS OF FAMILY VISITS

Number of calls made		357
Moved	128	
Out	108	
Wrong address	12	
At home	109	
Total	357	

INFORMATION RECEIVED ON FAMILY VISITS

At home		109
Using method prescribed	37	
Not using	62	
No report	10	
Total	109	

COMMENTS ON STATISTICS OF FOLLOW-UP WORK 1926–1927

RESULTS OF QUESTIONNAIRES

Out of 1,013 questionnaires mailed, fifty-two were returned because of wrong address, removal of patient, and the like. Answers were received from 325, about one-half answering the letter and the other half coming in person for a clinic visit. Roughly, then, about thirty per cent of these questionnaires were answered. The 636 not reporting will receive more letters, and perhaps a home visit will be made if they reside in or near New York.

RESULTS OF FAMILY VISITS

A total of 357 visits were made in this series. Only 109 patients were found at home. Notes were left for those who were out and plans made to call again,—a little over one-third of the calls made being productive of results. The information gathered by the family visitor is the same as that on the questionnaire, but with more details included.

INFORMATION RECEIVED AT FAMILY CALLS

Out of 109 patients on whom family calls were made, thirty-seven, or about one-third, were found to be continuing the methods prescribed. Some of these had not been heard from for a year or more. Sixty-two patients were not using it for some of the various reasons already given in the Report for 1925. It is obvious from this research that it does not follow that women who do not report are using the method with satisfaction. As a matter of fact, only one-third of these patients were using, with satisfaction and success, the methods prescribed. All this indicates how inaccurate any statistics may be, unless actually followed up and individual reports received. From ten of those patients visited who were at home, no report could be secured. Presence of contagious disease, inability to speak English, unwillingness to discuss the matter, etc., explain the reasons for failure to get reports.

Some idea may now be gained of the expense and trouble involved in an attempt to get accurate information. Many of these patients were given materials on their first visit valued at about $2.50 for each person. The follow-up letters and family visit further increase the cash outlay, not to mention the overhead expense of maintaining the Research Department and an adequate staff. This expense of course, may be materially lessened when hospital or dispensary with its staff and equipment are available.

EFFECTS OF CONTRACEPTIVES ON MARRIED LIFE

More than 300 women answered the question, "Is your married life happier, and if so how?" Seventy-three per cent stated that their married life was happier since using

the contraceptive method prescribed. A number stated that their married life had always been happy, and a few said that the domestic relation was not altered. Prominent in nearly every answer was the statement that they were relieved of worry and anxiety which previously had brought to them dread of an unwanted pregnancy. Their psychic and sex lives were more normal and their health improved, —some so much so that they had as a result of their own desire become pregnant again. This is surely a clear refutation of the oft-repeated fallacy that if women knew how to prevent pregnancy they would have no children. Our records and returned questionnaires contain abundant additional testimony to the natural desire of women for children.

The author has purposely avoided giving any extensive case-histories, feeling that in a book of this kind this method is unnecessary. So the plan followed has been the presentation of series of cases with supporting statistical data in as few words as clearness will permit.

SOCIAL AND SEX LIFE OF CLINIC PATIENTS

DATA BASED ON A STUDY OF 1,000 CONSECUTIVE CASES

Because of the very personal character of the problem of contraception, the taking of histories offers an excellent opportunity to gather information of an intimate character on all sex problems. The following statistical data with explanatory comment is based on a study of one thousand consecutive cases in 1925. Volumes, of course, could be written from the information thus gathered; but it is presented here only in the briefest possible form and only as it bears upon the subject under discussion.

DATA ON 1,000 CONSECUTIVE CASES

SOCIAL HISTORY

Nationality	*Per Cent*
Foreign born	51.
American born	49.
Weekly Income	
$8. to $50. (Average of $30.52)	77.5
$50. to $100. (Average of $61.20)	17.7
$100. or more	4.8
Age	
25 years	19.5
25 to 30 years	41.6
30 to 35 years	15.7
36 to 40 years	14.3
40 to 45 years	6.3
Number of Children per Family	
Living	2.41
Dead	.33
Abortions	.73
Total pregnancies	3.47

NATIONALITY

Fifty-one per cent of the patients were foreign born, which is a greater percentage than normally occurs in the community. About thirty-six per cent of the population of greater New York is foreign born. It appears, then, that those who are in the lowest social brackets and whose intelligence is not of the highest order seriously wish to regulate the size of their families. Indeed, they go to some

trouble to avail themselves of the opportunity for advice when it is within their reach. This fact refutes the often repeated fallacy that those who most need birth control will not or cannot use it.

INCOME

As may properly be inferred from the above statements, the majority of our patients have very limited earning capacity,—the table showing that more than three-quarters of them had a weekly income of less than $31.00. According to the recent survey of the National Industrial Conference Board,[1] the minimum wage upon which a man and his wife and three children can live in New York City varies from $36.00 to $40.00 per week. The slight variation is due to difference in standards for clerical and industrial workers. Many of these poorly-paid families already have from six to eight children each.

One can well imagine what such conditions lead to:—poor over-crowded living quarters lacking sunshine and ventilation; insufficient clothing; food lacking in quantity, quality and variety; and exposing the children to all the developmental as well as the contagious diseases. The discrepancy between earning capacity and statistical living costs for this class is made up by bad bills with tradesmen and landlords and by demands on available charities.

AGE

In excess of forty-one per cent of the patients were between the ages of twenty-five and thirty. It should be remembered that half of these were foreign born, that many more were the children of foreign-born parents, and that

[1] *The Cost of Living in New York City,* 1926. National Industrial Board, Inc., 247 Park Avenue, New York City.

they belong at the bottom of the social scale. It is the custom in this group to marry very young. To these wives, children come early, and these mothers are obliged to face the greatest domestic problems at an age much earlier than that at which the average college woman marries.

NUMBER OF CHILDREN PER FAMILY

The range in number of children per family was from none at all to thirteen, the average being 2.41 living children per family. When it is realized that these mothers were mostly between twenty-five and thirty years of age, it will be seen that they averaged more children per family than does the average American home for the same ages. It must be noted, also, that all these women who visited the Clinic had health reasons, sometimes of a serious nature, for not desiring more children, and that most of them had already resorted to contraceptives or abortions in their struggle for life. These women, in fact, have had an average 3.47 pregnancies each; .33 of their children have died, and abortions have averaged .73 for each.

ABORTIONS

The average number of abortions confessed was .73. However, there is good reason to believe that many of these women were reticent about admitting the practice of abortion, especially because most of the abortions reported were self-induced.

In general, it is safe to assume from our experience at the Clinical Research Department that one-third of all pregnancies end in abortion. This is in accord with other observers.[1] Moreover, this practice does not seem to be

[1] *Legal Medicine and Toxicology,* Peterson and Haines, Vol. II.

confined exclusively to any one social group. It is perhaps less frequent among the more intelligent because of their better advice and skill in the use of contraceptives. Furthermore, the practice of abortion seems to be on the increase. Those who are responsible for keeping women in ignorance of efficient methods of contraception can scarcely escape the responsibility for this growing evil of abortion.

SOURCES OF PATIENTS

Patients were referred from many sources. It is gratifying to note that an increasing number have come from physicians, hospitals and social service organizations. Tabulated according to the source of reference, we find the following:

REFERRED BY

Source	*Number*		*Per Cent*
Hospitals	96	or	5.8
Physicians	195	or	11.8
Social Service Organizations	220	or	13.3

RELIGIONS REPRESENTED BY CLINIC PATIENTS

The religions of our patients represent the various denominations in about the same proportion as they are found in the general population of New York City. The figures for the year are as follows:

Religion	*Number*	*Per Cent*
Protestant	642	38.8
Jewish	539	32.6
Catholic	434	26.2
Others	40	2.4

COMMENTS ON SEX EXPERIENCE

In our Research Department, a considerable amount of sex data has been accumulated from more than 10,000 cases. Unfortunately this has not yet been studied and tabulated. In studying the problem of contraception it is often very helpful to understand something of the sex life of the patient, especially with reference to the intensity of the sex impulse, frequency of coitus, and the general attitude of the patient to the sex act both from the physical and mental viewpoints. It is very much regretted, therefore, that this valuable material which has been obtained from direct conversation with patients is not yet available. Much has been written on the subject, however, by several authors. For example, the reader is referred to a recent work by Pearl [1] from which the following table and comments are quoted:

FREQUENCY OF COITUS

The Percentages of a Group of 257 Men Showing the Indicated Average Degrees of Sex Activity at Different Age Periods

	Under 20 Years	20–29 Years	30–39 Years	40–49 Years	50–59 Years	60–69 Years	70–79 Years
Three times a day, or oftener..	0.0	1.0	0.4	0.0	0.0	0.0	0.0
Twice a day, or oftener.....	0.0	1.9	1.6	0.4	0.0	0.5	0.0
Once a day, or oftener.....	3.8	8.5	7.7	4.8	3.2	1.0	0.0
Every other day, or oftener....	11.5	26.9	27.1	22.7	12.9	3.6	0.0
Every third day, or oftener....	26.1	45.7	49.8	42.5	24.2	13.0	3.8
Once a week, or oftener.....	34.5	68.2	80.2	74.6	59.0	31.3	8.9

"The precise manner in which this table is to be read is as follows: Of the 213 men reporting for the decade

[1] *The Biology of Population Growth*, Chapter VIII, pp. 178.

20–29, there were 8.5 per cent who, during that age period, indulged in coitus on the average once a day or oftener than once a day. Similarly, of the 191 men reporting on the decade 60–69, there were 31.3 per cent who, during that age period, indulged once a week, or oftener than once a week. These examples will make clear how the whole table is to be read."

Pearl showed that the frequency of coitus not only varied with different ages, but also with social groups; showing a different frequency in Farmers, Merchants and Bankers, and Professional men. He also showed that frequency of coitus was co-related to the birth rate. It is the impression of the author that the frequency of intercourse among clinic patients is greater than is shown in the table by Pearl. This is perhaps owing to the preponderance of the farmer-laborer type among our patients.

FREQUENCY OF ORGASM

We sought to discover what the differences were in this matter between men and women. This was not a study of frigidity in the strict sense of that term. Here again we await the tabulation of our accumulated data. An interesting comment by [1] Dickinson on this subject is summarized here as follows:

Cause of Frigidity

A. E. Margami, divided women into three groups. First, those who always experienced the orgasm; second,

[1] *Average Sex Life of American Women,* Section on Obstetrics, Gynecology and Abdominal Surgery, 76th Annual Session of the American Medical Association, Atlantic City, New Jersey, May, 1925.

those who occasionally experienced it; and third, those who never had any orgasm. He maintained there was a co-relationship between orgasm and the position of the clitoris. In a study of 200 cases, he found in 69 per cent the clitoris less than 2.5 centimeters anterior to the sub-pubic arch as measured from the meatus urethrae. The clitoris is 2.5 centimeters above the meatus in 10 per cent, and is more than 2.5 centimeters above the meatus in 21 per cent. Women in the first group, according to Margami, always have an orgasm, whereas those in the last group never experience it. This is denied by Dickinson, who states that in a study of 100 cases the anatomical findings are in substantial agreement, but he does not find a corresponding experience of the orgasm in the women studied in his series.

The author's opinion is that Margami's theory is too mechanical. It disregards the powerful psychic factors in the sex act, and disregards also the observation that a woman may have an orgasm with one mating, and not with another. In the absence of absolute data, it is the author's conviction based on years of observation, that about seventy-five per cent of all women only occasionally or never experience the orgasm, and that about twenty-five per cent experience it usually or always. The inhibitions of girlhood carried over to married life often play a part in suppressing the orgasm during the early years of marriage. Fear of pregnancy also restrains many women from the fullest enjoyment of coitus under the false notion that if they "hold back" and do not cooperate, but maintain a passive attitude, pregnancy is less likely to take place. Only education which teaches abandonment on the part of the woman and restraint on the part of the man can bring about a more mutual experience in this matter.

ATTITUDE TOWARD COITUS

Despite the fear of unwanted pregnancies and failure to experience more frequently the climax of the sex act, the majority of women maintain a normal attitude toward the sex relation. The investigation of Dr. Katherine B. Davis, already referred to, showed that, in 1,000 questionnaires returned from married women, 85 per cent of them were happily married and that proper sex adjustment played an important part in their happiness. This fact is interesting in view of the enormous amount of domestic scandal and divorce news published in the newspapers, which gives a false impression concerning the true status of the marriage relation.

It is the author's observation that about seventy-five per cent of all married women take a normal attitude toward the sex relation. To the other twenty-five per cent, it is anything from uninteresting to disgusting and repulsive. The author does not believe that absolute frigidity is as common as has been supposed. Much of it is relative and under proper conditions may be corrected. It would be an interesting study in psychology to try to evaluate the psychic factors in frigidity and the reasons for repulsion on the part of some women.

Author's Apology

The author is aware that in these few comments on sex matters he has been generalizing, and that his conclusions are not supported by accompanying clinical data. He feels, however, that his twelve years of studious interest in this matter and his personal discussions with several thousand women on these subjects, qualify him to offer these general

opinions in the absence of something more substantial, which it is hoped will be available in the near future.

Need of Enlightenment

Besides the satisfaction which comes to one in carrying on any scientific research, there has been in connection with the work a feeling that one has also made a contribution to the solution of a great social problem. It is appalling to see the evil effects which the program, or lack of program, on sex matters of a past day has had upon the mental and physical lives of married women.

Special reference may properly be made to the impression given to young girls that all thoughts, desires and inclinations of a sex character are wrong and nasty, and should be immediately put out of the mind. This inheritance of the past has led to a worse condition than that of mere ignorance. It has given a perverted attitude toward one of the most fundamental, essential, and beautiful of all natural human functions. Thus many women enter upon matrimony with an entirely wrong conception of the sex relation. In a great many instances, it has taken many years of married life for a wife to overcome the inhibitions created in her earlier years and in her early and pitiful struggles with her badly instructed conscience. The psychic shocks and unhappiness thus created have not only robbed married life of much of its pleasure, but have also led in many instances to domestic misunderstandings and worse.

It is therefore encouraging to see a change in this matter. Such subjects are being discussed more fully and intelligently than ever before. But the coming of new knowledge and freedom is not without its dangers, as is true in

virtually every phase of life. Merely because of this danger, nevertheless, we cannot champion a program of ignorance. The day for the suppression of knowledge is past. People of today are demanding to know the facts and want to decide for themselves the course they will take. Whether we wish it or not, we must have confidence that human beings, at heart, desire the best things in life. When all the facts are before them, they will decide in most cases on a right and proper course. Experience in other phases of human activity shows that, while practically every privilege granted to people is at times abused, the great majority ultimately decide on a course which makes for personal and social welfare. In any case, whatever the dangers of enlightenment may be, they certainly cannot equal the dangers of ignorance.

It is to be hoped that our Medical College Faculties will realize the increasing importance of adding to their curricula more adequate courses of instruction in the social aspects of sex functions. The physician of the future must be a real counselor in these vital matters.

CHAPTER XIV

Other Important Clinical Reports—1925–1927 (With Statistical Data)

IN 1924 and 1925 respectively, clinical centres were opened in Chicago and in Los Angeles for the dissemination of contraceptive advice. The work in these centres has now grown to very significant proportions. Through the courtesy of the officers of these organizations, their latest reports have been made available for inclusion in this book. Since these investigations have been carried on independently and in different parts of the country, they are valuable not only for the data which they contain, but also for providing a means of comparison and corroboration of conclusions already reached in our own Research Department. It is not necessary for our purpose to publish these reports in full. Statistical data, however, with notes and comments are given to emphasize the salient features.

The author has been an interested visitor at these clinics and can testify to the ability and integrity of those in charge. The information presented herewith rests upon the authority of the officers of these Clinics who have kindly consented to their publication in this form.

Illinois Birth Control League

The Illinois League opened its first medical centre in Chicago on July seventh, 1924. Two more were opened in 1925, another in 1926, and a further addition of two in 1927, making a total at present of six medical centres.

Contraceptive advice is given in these centres on specified days and at scheduled hours by a competent medical staff of four doctors. The headquarters of this League is at 203 N. Wabash Avenue, Chicago, Illinois. The entire work is being done under the supervision of Dr. Rachelle Yarros, Medical Director. The personnel of management is as follows:

MRS. BENJAMIN CARPENTER, President
MRS. JAMES F. PORTER, Vice-President
MRS. WILLOWBY WALLING, Treasurer
MRS. NATHAN S. DAVIS, III, Secretary
MRS. EFFIE JEANNE LYON, Executive Secretary
DR. RACHELLE S. YARROS, Medical Director

Council

Dr. Herman M. Adler
Dr. Charles S. Bacon
Dr. Joseph L. Baer
Mr. Horace J. Bridges
Rev. Duncan H. Browne, D.D.
Dr. Anton J. Carlson
Dr. Frank Cary
Dr. Irving S. Cutter
Dr. Nathan S. Davis, III
Dr. Joseph B. DeLee
Mrs. Joseph N. Eisendrath
Mrs. John V. Farwell
Dr. John Favill
Mrs. James A. Field
Mrs. Robert B. Gregory
Dr. Clifford G. Grulee
Dr. Alice Hamilton
Dr. N. Sproat Heaney
Mr. Joel D. Hunter
Rev. Norman Hutton, D.D.
Mrs. Harold L. Ickes
Dr. Karl K. Koessler
Mrs. B. F. Langworthy
Dr. Louis L. Mann, Ph.D.
Mrs. Joseph Mayer
Dr. Franklin C. McLean
Mrs. James W. Morrison
Mr. Benjamin Page
Dr. William Allen Pusey
Rev. James A. Richards
Mrs. Julius Rosenwald
Miss Grace E. Temple
Miss Harriet Vittum

ILLINOIS LEAGUE REPORT—1924–1927

The report presented here through the courtesy of the President and the Medical Director is from July 7, 1924

to June 30, 1927. Since space forbids giving individual reports from each of the six centres, the totals only of all the centres are included in the figures which follow:

Applied for contraceptive advice			2,763
Refused advice		475	
Cases advised		2,288	
Cases where no report could be obtained		926	
Cases reported back to office		1,362	
Cases which did not use method		275	
Cases which used method			1,087
Successful		968	
Pregnant		119	
Analysis of data			
Refused advice		475	
Reasons			
Pregnant	215		
Various other reasons	260		
	475		
Cases not using method			275
Reasons			
Not necessary	45		
Not living with husband			
Patient ill			
Husband in Sanatorium			
Had operation, etc.			
No reason given	34		
Husband objects	29		
No confidence in method	14		
Too much trouble	14		
Does not like method	17		
Wants more children	11		
Objection to pessary, unable to adjust	14		
Causes irritation	14		
Slips out of place	6		
Various other reasons, one or two each	77		
	275		

Cases using method		1,087
Successful	968	
Pregnant	119	
Of the 119 pregnant		
Wanted children	3	
Did not follow instructions	61	
Pregnant before using	1	
Uncertain how used	38	
Claimed to have followed instructions	16	
	119	

SUMMARY

Those who wanted children and the one who was pregnant before using, obviously could not be counted as failures. Sixty-one admitted that they did not follow instructions. It would, therefore, be misleading to count these either as failures or successes. The next group of thirty-eight is difficult to classify. After discussion and cross question, both patient and investigator were uncertain as to how the method had been used, and they are, therefore, eliminated. Sixteen claimed to have followed instructions. Of all patients known to have definitely followed the method correctly, the failures were 1.4 per cent.

It should be noted, however, that this method of elimination which is obviously a fair one has not been followed by other clinics. It is difficult, therefore, to make comparison with the results of other clinics unless one compares only total successes and total failures.

METHODS USED

Advised		2,288
French pessary and Prekonsol jelly	2,049	
Ramses pessary and Prekonsol jelly	225	
Prekonsol jelly	14	
	2,288	

It is only recently that the Ramses type of pessary has been used in these clinics in any considerable number, so that about 90 per cent of the experience has been with a French pessary and Prekonsol jelly, the formula of which is Boric Acid, Chinosol, Glycerine, Irish Moss.

COMPARATIVE RESULTS

French Pessary and Jelly	2,049
Failures	112
Success	96.5%
Ramses Pessary and Jelly	225
Failures	6
Success	97.4%
Prekonsol Jelly alone	14
Failures	1
Success	(Number inadequate to estimate)

The results shown here are very good. The showing made by the French pessary with contraceptive jelly is slightly better than in the report of Konikow, recorded in Chapter III. The results of Ramses pessary with contraceptive jelly is slightly better than that shown by our Research Department. It is, however, impossible to make exact comparisons because data are lacking as to conditions under which these statistics were gathered. For example, it is not stated how many of these 225 cases on Ramses pessary with jelly have run under six months, and how much follow-up work was done and of what character it was in obtaining end-results on the entire number. Since the method of reporting cases is different, it is difficult to make exact comparisons of reports. It must be obvious, however, that much better results can be obtained by contraceptive methods than has hitherto been thought possible;

and the Illinois Birth Control League is to be congratulated on the good showing made in its report. It is hoped that as a result of conferences, all clinics may be able in the future to make uniform reports which will facilitate the comparison of all data collected.

NATIONALITIES OF APPLICANTS

American born (including 429 colored)	1,538
Foreign born	1,225
	2,763

RELIGION OF APPLICANTS [1]

Protestant	1,536
Catholic	906
Jewish	259
Others	62
	2,763

REASONS FOR SEEKING ADVICE

Economic	1,341
To space children	520
Health	259
Economic and health	141
Economic and to space	108
Health and to space	24
Miscellaneous	370
	2,763

[1] Experience here is about the same as in New York City, where members of different religions apply for advice in about the same proportion as that in which they are represented in the community from which the clinic draws its patients.

Out of 2,763 cases who applied, 2,393 wanted information because of health or economic reasons, or because of both. Spacing is considered a health reason.

BY WHOM REFERRED

Public print	698
Patients' friends, etc.	605
Charitable organizations	732
Hospitals, Clinics, Doctors, etc.	279
Other miscellaneous	449
Total	2,763

The greatest source of patients was from charitable organizations. The second was from popular discussion of birth control in newspapers and magazines. Hospitals, Clinics and Physicians are giving increasing cooperation.

PERIOD OF OBSERVATION

The data given in this report are taken from July 7, 1924 to June 30, 1927, about three years. While some of the cases have reported only for from one to three months, others have continued to report for periods up to thirty-six months. Some of the failures recorded had used the method successfully for fifteen and seventeen months and then became pregnant.

With over 2,700 cases now under observation in the clinics of this League, with the work expanding and experience and efficiency increasing, future reports may be looked forward to with considerable interest.

REPORT OF THE LOS ANGELES MOTHERS CLINIC ASSOCIATION, INC., LOS ANGELES, CALIFORNIA

This clinic is located at 646 Southwest Bldg., 130 South Broadway, Los Angeles. It was opened in April, 1925.

The purpose of this organization is to establish in the City of Los Angeles and in the State of California, Mothers' Clinics and to undertake other enterprises for imparting to applicants advice and instruction for protecting the life and health of mothers and insuring, as far as possible, the mental and physical vigor of their offspring, such purpose to be carried out in conformity with the laws of the State of California.

The officers and directors of this Association are as follows:

H. G. BRAINERD, M.D.,[1] President
AARON J. ROSANOFF, M.D., Vice-President
T. PERCEVAL GERSON, M.D., Sec'y-Treas.
Mrs. Edythe C. Biorkman
Mrs. Kemper Campbell
Etta Gray, M.D.
Mrs. Frances Noel

CLINICS

HENRY G. BRAINERD, M.D., Director
MARGARET MCCLURE LOWE, R.N., Supt.
CAROLINE CLOUGH SMITH, Office Secretary
EVELYN LOPEZ ROMO, Spanish Interpreter

This Report is presented here through the courtesy of the Director and the Superintendent, and is from April, 1925, to December, 1927.

[1] Recently deceased.

TABLE OF ALL METHODS

Applied		1,500
Not advised	90	
Advised in all methods		1,410
Not reporting	353	
Reporting		1,057
Pregnant	147	
Successful		910
Percentage pregnant in all methods		13.9
Percentage successful in all methods		86.1

The first eight months were devoted to experiment with several methods, and it was in this period that the largest number of pregnancies occurred. The Ramses type pessaries were difficult to obtain at that time, but it was obvious from the limited experience with it that better results could be obtained with it than by any other method tried. A manufacturer was finally found who produced a pessary something like the Ramses. It has a coiled wire spring in the rim and the rubber dome is of the same shape, but is made of a different kind of rubber and the process of manufacture is different. The finished product, however, is similar in size and shape, and the principle is the same as that of the Ramses. This pessary has been called Protex, and is made in three sizes, 0, 1, and 2, which correspond to about sizes 50, 65 and 70 of the Ramses.

The following table represents the experience of this clinic with the Protex Cup. The period covered in this series was from December, 1926 to December, 1927. Cases have run for periods varying from one month to one year.

PROTEX CUPS WITH JELLY

Advised	761
No report	21
Report	740
Pregnant	21
Successful	719
Percentage successful	97.1
Percentage pregnant	2.9

Notes on this best method

The success of this method is very gratifying. Of 740 cases reporting its use, it was found that less than three per cent became pregnant; and in these few cases it was found that the patients had failed to follow the simple directions given to them. Carelessness, indeed, is the greatest cause of failure in contraceptive practice.

The technique of examining, fitting and instructing the patient with this method is exactly the same as already described in Chapter VIII, and a contraceptive jelly is used with this pessary. The formula used in the Los Angeles Clinic is:

Quinine Bisulph	drams four
Dilute Sulph. acid	drachms one half
Water q.s.	ounces four
Mix and add	
Glycerite of Starch, q.s.	pints one

Attention has already been called to the fact that there is as yet no uniformity in collecting and reporting data on contraception. Attention has been directed also to the desirability of reporting only cases which have run for a specified period, preferably one year, and having all cases followed up to check end-results at the expiration of that

time. Also there should be a minimum of 300 cases in the group reported. For instance, there were many methods used in the Los Angeles Clinic in its first experimental period. Later, when Protex Cups were available, they were adopted as routine. Since that time the best results have been obtained. It is stated in their report, however, that all these cases on Protex Cups were advised during the year 1927.

It is apparent, therefore, that many of these cases had run much less than six months when the report was made. This report can, therefore, be considered preliminary in character. At the same time it indicates the method found most effective after experimenting with Sponges, Cervical Caps and Diaphragm pessaries. The diaphragm pessary called Protex Cup will be used routinely on a large number of cases, and future reports covering a larger number of cases on an adequate testing time will then be issued. It is significant that where comparative tests have been made, the diaphragm type pessary has always given the best results.

The following is quoted from the report submitted by Mrs. J. W. Lowe, R.N., Superintendent:

"We are fortunate in Los Angeles in having Dr. Brainerd[1] with his broad knowledge and thorough understanding of all our problems, a small active Executive Board and our clinic doctors,—every one vitally interested in each mother; and along with this, the splendid cooperation of all Social Service Agencies. Otherwise we could not have established for our mothers a real Mothers' Clinic where nothing but contraceptive methods are dispensed, but where each mother is guided to the proper agency should she need medical, social service, or domestic advice."

[1] Recently deceased.

CHAPTER XV

Other Clinics in America and Europe (Non-statistical)

THE several reports given in the preceding four chapters contain all the available statistical data on the subject of contraception which are based upon case histories and follow-up work. There are, however, many more clinics in both America and Europe which are now working on this problem but as yet have made no statistical reports on the results of their work. The present chapter contains a list of these clinics and briefly summarizes such information concerning them as could be ascertained from their published statements, and includes a review of a recent contraceptive survey in England.

Committee on Maternal Health, New York City

This Committee was organized March 9, 1923. Its offices are in the Academy of Medicine Building, Fifth Avenue and 103rd Street, New York City. It is made up of doctors, laymen, social workers and nurses, the management being in the hands of physicians. Its object is to undertake a scientific investigation of human fertility in its medical aspects, including control of conception, sterility, sterilization, and the average sex life. Its working plan has been approved by the New York Obstetrical Society,

the Public Health Committee of the Academy of Medicine, and the American Medical Association. Its Executive Committee is as follows:

SAMUEL W. LAMBERT, M.D., Chairman
ROBERT LATOU DICKINSON, M.D., Secretary
GERTRUDE MINTURN PINCHOT, Treasurer
LOUISE STEVENS BRYANT, PH.D., Executive Secretary

Bailey B. Burritt
Haven Emerson, M.D.
Nellis B. Foster, M.D.
Robert T. Frank, M.D.
Barton Cooke Hirst, M.D.
Frederick C. Holden, M.D.
George W. Kosmak, M.D.
William F. Snow, M.D.
Marguerite A. Wales, R.N.

WORK NOW UNDER WAY

1. Abstracting and indexing of literature.

2. Inspection of Birth Control Clinics and their records.

3. Critical survey of foreign experience and American practice.

4. Gathering of evidence as to conditions under which advice for or against pregnancy should be given, including the proper field for sterilization, and its technique.

5. Detailed consideration of all contraceptive methods and their after-effects.

6. Collection and analysis of long series of case histories.

7. Furnishing clinics with supplies not otherwise procurable.

8. Planting actual work in representative clinics and hospitals.

9. Placing laboratory and clinical researches on fertility and sterility in cooperation with universities.

10. Drafting amendments to laws.

11. Issuing bulletins and other publications and lecturing to medical societies to keep the medical profession informed. Eleven articles have been published and three books are under way.

CLINICS

The Committee is devoting itself to developing and financing, wholly or in part, a series of well-studied tests, such as those under way in the gynecological clinics in Greater New York Hospitals, distributed as follows from north to south: Lebanon, Woman's, Mount Sinai, Sloane, New York Nursery and Child's, Lenox, New York Infirmary for Women and Children, and Beth Israel. Follow-up work is being done on cases in these clinics. Correspondence is active with clinics in other parts of the country and in England.

RESEARCHES

The Committee is giving substantial assistance to researches—animal and human—in laboratories and hospitals in various parts of the country, seeking long-time methods which will be free from present handicaps and uncertainties.

The results of its own contraceptive research work have not yet been published by the Committee. It has, however, published several bulletins and surveys concerning the present status of birth control clinics, and contraceptive investigations in Europe as well as in the United States. The first of these was entitled "Contraception—A Medical Review of the Situation." It was published in the American *Journal of Obstetrics and Gynecology*, Vol. VIII, No. 5,

November, 1925. Later it appeared in pamphlet form. A chart copied from that pamphlet, which contrasts the experience of clinic patients with that of educated American women in the use of contraceptives, is presented here in full detail.

This chart was compiled from the available figures taken from Katherine B. Davis' questionnaire and the replies of 730 educated American women; from 1,208 clinic patients (American Birth Control League Clinical Research Department); and from the recommendations of 64 obstetricians and gynecologists of New York City and Chicago.

The "conflict of evidence" in this chart, as seen in the different results obtained by the same methods among college women and among clinic patients, is probably explained by the fact that the obstetricians and gynecologists were in constant touch with their educated patients and had full data. Also the questionnaire of Dr. Katherine B. Davis probably represents the experience of a cross-section of the intelligent group in a given community. The methods used by the clinic patients, on the other hand, had resulted in failure or had proved unsatisfactory before they came to the clinic, and they were seeking a better substitute. Thus the clinic group would naturally show a greater percentage of failures. In any case, however, they would not make so good a showing as the educated group. Fatigue, lack of diligence, overcrowding, lack of toilet facilities, etc., would inevitably lead to more failures in these clinic patients with whatever methods they employed. A perusal, however, of the Clinic Report for 1925 in Chapter XIII, will show that even this clinic group is capable of achieving very satisfactory results when properly instructed.

A COMPARISON OF EXPERIENCES WITH CONTRACEPTIVES

1,208 CLINIC WOMEN, BEFORE BEING ADVISED AT THE CLINICAL RESEARCH DEPARTMENT, COMPARED WITH 794 EDUCATED AMERICAN WOMEN

METHODS OF CONTRACEPTION	FAILURES Per cent		ADVANTAGES	DISADVANTAGES
	College Women	Clinic Women		
1. *Abstinence*	00	00	For the frigid and ascetic?	Nerve strain Infidelity "25 per cent"
2. *Lactation*		100		
3. *Safe Period:* (War, Germany, safety after 21st day)	29	100	Safe for a few women	
4. *Withdrawal*, coitus interruptus (France); coitus reservatus (Oneida Community)	13	70	Simplicity No apparatus No cleanup	Usually failure of wife's climax
5. *Sheath:* 2 kinds, rubber, skin	12	50	Relative simplicity. Only safety in venereal disease	Blunting of sensation. Frequent refusal by male
a. Tested, lubricated	Fewer			
b. Douche for break or slip	Fewer			
c. Combined with chemical				
6. *Douche*	42	100	Cleanliness	Not adapted to poor. Mouth of womb not cleared of semen
a. Plain				
b. With pressure				
c. Medicated	24	90		
7. *Chemicals:* (acids, quinine, chinosol)			Simplicity No handicap on sensation	Messy. Best results require douche
a. Suppositories	24	70		
b. Jellies (paste)	4	3		
c. Effervescent tablet		3		Not adapted to poor, if douche is to follow
d. With douche afterward	4			
8. *Veils:* soft rubber vaginal cups			Place safety in wife's own care	Requires careful fitting. Daily removal
a. Mizpah type (snug on cervix)	24	1 to 94		
b. Mensinga type (distends upper vagina)		4	No handicap on sensation	Ulceration if neglected
c. With chemical		2		
d. Douche afterward or next morning		2 to 6		
8. a *Tampons, sponges* (medicated)		82		
9. *Uterine Stems:*				
a. Cervix only	Some	Some		Infection not infrequent. Probably abortifacient
b. Into body of uterus	Some	Some	Stationary safeguard	
10. *Sterilization*			Permanent:	
a. Cautery-sound strictures at cornu			Office procedure	Few cases tried Skill required
b. Tubal excision	Some	Some	Insufflation proof of a and b	Major operation, done on poor operative risk
c. X-ray, radium				

Nos. 4 and 5 place safety measures with the male.
Nos. 6 to 9 place safety measures with the female.
Percentages are drawn from the literature; about 4700 cases.

The latest publication of the Maternal Health Committee is entitled "The Birth Control Movement," which appeared first as an article in the *Medical Journal and Record* for May 18, 1927, and is now available in pamphlet form.

OTHER AMERICAN CLINICS

Besides the clinics already named, there are a number of others of more recent origin in various parts of the country; some in connection with hospitals and dispensaries and others of an independent character, but all under the control and personal direction of physicians. Among these are the following:

Mothers' Clinic, Detroit, Michigan, Dr. Harry M. Kirchbaum, Director; University Hospital Dispensary, Minneapolis, Minnesota, Dr. J. C. Litzenburg, Director; Mothers' Guidance Clinic, Pasadena, California, Dr. J. Severy Hibben, Director; Bureau for Contraceptive Advice, Baltimore, Maryland, Dr. Bessie L. Moses, Director.

The last named is a good type of these newly organized clinics. A list of its Committee, and their letter addressed to the physicians of Maryland indicating its object and character, follow:

BUREAU FOR CONTRACEPTIVE ADVICE, BALTIMORE

Committee

JUDGE JACOB M. MOSES, Chairman
DR. WILLIAM H. HOWELL, Vice-Chairman
DR. RAYMOND PEARL, Vice-Chairman
MRS. RICHARD L. CARY, Secretary
DR. DONALD R. HOOKER, Treasurer
DR. BESSIE L. MOSES, Director

Mrs. Caleb N. Athey
Mrs. William Bauernschmidt
Dr. Mildred C. Clough
Dr. Paul W. Clough
Miss Elizabeth Gilman
Mrs. Donald R. Hooker
Prof. Jacob H. Hollander
Mrs. Henry C. Kirk
Rabbi Morris S. Lazaron
Dr. Adolf Meyer
Captain L. Wardlaw Miles
Dr. Mary Sherwood
Dr. Lillian Welsh
Dr. J. Whitridge Williams

Letter to the Physicians of Maryland

"The above Committee wishes to call your attention to the following statement concerning a Bureau for Contraceptive Advice, which has been opened at 1028 N. Broadway, under the direction of Dr. Bessie L. Moses.

"The primary function of the Bureau will be to give advice concerning the prevention of conception to such women as may be sent to it by reputable physicians with a statement that in his or her opinion the mental or physical condition of the patient will be aggravated by further childbearing, and that he is not prepared to give the necessary advice. No advice, however, will be given to women who are already pregnant.

"A secondary function will be to ascertain the efficiency of the advice given, as well as to determine the relative value of the various methods which may from time to time be recommended.

"Doubtless, social service and other charitable workers will discover in the course of their duties women whom they believe to be in need of such advice. In such cases, they should advise the woman to secure a letter to the Bureau from her medical attendant; but, if that is not feasible, a statement giving the salient features of the case should be submitted, when it will be studied by one of an advisory group of doctors before the patient consults the physician

in charge of the Bureau. Such a precaution is necessary to prevent advice being given in unsuitable cases, as well as to protect the physician in charge from personal solicitation.

"It is the earnest desire of the Committee that the activities of the Bureau shall be conducted along the most ethical lines, and be limited entirely to those who really need its services.

"White patients will be seen on Wednesday, 1–4 P.M.
"Colored patients will be seen on Thursday, 1–4 P.M."

LIST OF AMERICAN CONTRACEPTIVE CLINICS

There are in the United States twenty-one contraceptive clinics located as follows:

New York City—Nine	
Maternal Health Committee—	Eight Hospital Clinics
Clinical Research Department of American Birth Control League—	One Non-hospital Clinic
Baltimore	One Non-hospital Clinic
Detroit	One Non-hospital Clinic
Chicago	Six Non-hospital Clinics
Minneapolis	One Hospital Clinic
Los Angeles	One Non-hospital Clinic
Pasadena	One Hospital Clinic

Definition

A clinic is a room in a hospital or dispensary where patients are brought to be used as material for the instruc-

tion of medical students or physicians in the various branches of medicine or surgery.

The term clinic is often used to designate the group of patients thus assembled.

It will be seen from this definition that the word clinic is often misused. For instance, in Holland these centres where contraceptive advice is given, are private enterprises conducted by nurses and midwives especially trained to advise in contraception. No teaching is done. In England, physicians are not always welcomed to clinics and no teaching is done. The term clinic is also misused in the United States where it is often used to designate a "group practice"; that is, where several physicians in different specialties share a common waiting room and cooperate in their work. So far as is known, however, all of the contraceptive clinics listed above are of a public character. They are conducted by well-known physicians. Visiting physicians are welcome to attend their sessions and such instruction as may be possible is given them.

The hospital clinics are connected with the out patient department of a hospital or dispensary. The non-hospital clinics are independent of any institution but are invariably under the direction of a medical committee and patients are all advised by physicians only.

From a beginning in 1923 with one clinic, there are now, five years later, no less than twenty-one clinics operating in various parts of the United States, and organization work is well under way for several others, notably in Cleveland, Denver[1] *and Syracuse.*

[1] Clinics at Cleveland and Denver have recently been established.

REPORT ON ENGLISH CLINICS

Two organizations in England are worthy of special discussion in a book of this kind. These are the Society for the Provision of Birth Control Clinics and the pioneer Mothers' Clinic for Constructive Birth Control. A brief summary only is presented, but sufficient detail is given to emphasize their significance.

SOCIETY FOR THE PROVISION OF BIRTH CONTROL CLINICS

The object and purpose of this organization is described in Rule I of its constitution, as follows:

"The name of the Society shall be the Society for the Provision of Birth Control Clinics and its objects shall be, in the interests of social welfare and for the relief of poverty, to establish and support clinics in which instruction in the most satisfactory method of contraception will be given to married women in poor circumstances by registered medical practitioners (preferably women) assisted when necessary by qualified nurses. The medical practitioners shall be solely responsible for the treatment of patients and the nurses shall act only under the instructions of the medical practitioners."

Executive Committee

The HON. MRS. GRAHAM MURRAY, O.B.E., Chairman
MR. HAROLD COX, Honorable Treasurer
MRS. EVELYN FULLER, Secretary and Superintendent
22 Regents Park Road, N.W. 1, London, England.

The following statistical table taken from the 1926–1927 Report shows that nine clinics are now being operated by this society.

Name of Centre	Date of Opening	Previous to August 31, 1926		September 1, 1926–August 31, 1927	
		New Cases	Return Visits	New Cases	Return Visits
Walworth	November, 1921	7437	9460	1640	3270
North Kensington	November, 1924	658	749	432	735
Wolverhampton	May, 1925	386	308	240	415
Mining Clinic		108	106	40	73
Cambridge	August, 1925	178	168	160	128
Manchester and Salford	March, 1926	280	200	340	410
East London	June, 1926	87	100*	492	767†
Glasgow	August, 1926	.....	.....	263	128
Oxford	November, 1926	.....	.....	56	44
Birmingham	April, 1927	.....	.....	225	167
		9134	11,091	3888	6137

* Including 45 cases transferred from Walworth.
† Including 97 cases transferred from Walworth.

SCOPE AND CHARACTER OF CLINICS

Results of contraceptive methods are not included in the Report. Mrs. Dr. G. M. Cox, Medical Officer of the Women's Welfare Centre (Birth Control Clinic) appeared before the Medical Committee appointed by the National Council of Public Morals in connection with the investigation of the National Birth-rate Commission to give evidence on the subject of Birth Control. Her precis of evidence is so concise and throws so much light on the conduct and experience of these clinics that it is quoted in full:

[1] "This Clinic was opened in November, 1921, by the Society for the Provision of Birth Control Clinics. Over

[1] *Medical Aspects of Contraception.* Martin Hopkinson & Co., London, England, 1927.

7,600 patients have attended. Records are kept, and contact with patients is maintained by post.

"Type of case.—Mothers of families whose total income averages between £2 and £3 a week; and wives of unemployed.

"Clinic routine.—Each patient has a gynecological examination by a doctor, who also fits the pessary in suitable cases. Instruction in manipulation of the pessary is given by the clinic nurse. Personal hygiene is emphasized.

"Patients are asked to return every six months for gynaecological examination by a doctor, and to obtain a new pessary. Certain cases are first referred to hospital or private doctor for preliminary treatment of abnormal local conditions.

"A. Methods used:

1. Dutch Mensinga pessary in large majority of cases.
2. Dumas pessary (special cases).

N. B.—Both these pessaries fit into the vaginal fornices, and therefore do not grip the cervix. Lactic acid ointment is used for smearing on the rim of the pessary.

3. Soluble medicated pessaries—in special cases, either alone or in conjunction with an occlusive pessary.
4. Condom—in special cases.

B. Medical reasons for exercise of conception control:

Cases sent to the Clinic from Hospitals, General Practitioners, Tuberculosis Dispensaries, Infant Welfare Centres, etc., include the following conditions of ill health of the mother or of hereditary disease of either parent:

1. Heart disease.
2. Kidney disease.
3. Tuberculosis.

4. Contracted pelvis, necessitating repeated Caesarean section.

5. Debility from excessive child-bearing or repeated abortions.

6. Epilepsy.

7. Recent puerperal insanity.

8. Intermittent insanity.

9. Chronic alcoholics.

C. Effect on health of sexual abstinence, partial or complete, in married life.—Evidence of nervous irritability and depression on the part of the husband.

D. "Safe period."—No evidence of an absolute "Safe period."

E. Effect of use of various contraceptives on:

(I) Subsequent fertility.—Evidence that use of occlusive pessary does not diminish fertility:

(*a*) Pregnancy following without delay on discontinuing use of pessary.

(*b*) No reports of subsequent sterility.

(II) Health.—No evidence whatever of any injury to health from the use of contraceptive methods advised.

(*a*) Marked improvement in mental health from the removal of the constant terror of pregnancy.

(*b*) Better relations between husband and wife, leading to increased happiness in the home."

Comment

It is gratifying to note in the testimony of Dr. Cox here recorded that contact with the patients is maintained by post. It is to be hoped that this practice can be supplemented by a family visitor so that as many cases as possible can be followed up and the end-results recorded. Because these clinics are entirely under medical control, the publication of their statistical data will be valuable to all students of the problems of contraception.

MOTHERS' CLINIC FOR CONSTRUCTIVE BIRTH CONTROL

This is described as the first Birth Control Clinic in the British Empire by its co-founder, Marie Carmichael Stopes, D. Sc. Ph.D. In a small booklet published in 1925 and entitled *The First Five Thousand*, the following information appears:

"Immediately the war was over, recognizing that novel enterprises are the proper work of individuals and not of established bodies, we decided to waste no more time in urging others to start the first Birth Control Clinic. . . . A suitable house was obtained in a poor district, at No. 61, Marlborough Road, Holloway, London, N. 19, and on Thursday, 17th March, 1921, the Clinic was first opened."

Those on the Staff and assisting at the Clinic have been as follows:

Dr. Jane Lorimer Hawthorne, the first Honorary Medical Consultant, has been from the first attached to the Clinic as Visiting Specialist and has shown the greatest interest in the movement from the beginning.

Dr. Maude E. Kerslake, Second Visiting Specialist.

Sister G. A. Roberts, Certificated Midwife, sometime Government Superintendent.

Nurse Maude Hebbes, Certificated Midwife.

Nurse Rosina P. Thompson, Certificated Midwife.

Nurse Margaret Thompson, Certificated Midwife.

Some distinguished people at the first kindly lent their names as Patrons to indicate the deep interest felt in very various quarters in a scheme of such racial moment, but no one was asked for any financial aid. The two founders felt privileged to take entirely upon themselves the initiation of a work so calculated ultimately to save untold expense to the whole Community as well as untellable misery to individuals."

Objects of Clinic

"To test for ourselves the truth or otherwise of the then current belief that the working classes were hostile to the birth control idea. It seemed to us that if the help afforded by contraceptive knowledge was presented simply and sympathetically, they could not be hostile but would welcome it most gratefully, which surmise time has proved absolutely correct, and

"We desired to obtain facts at first hand about the practical aspects of contraceptive measures so as to have a solid basis for argument to replace the hypothetical suppositions so widely current: and

"We desired to collect carefully recorded scientific data, not only on the practical utilization of middle class contraceptive methods by poor and less educated women, but also data about co-ordinated details of the sex life of women."

Results

Total number applied	5,000
Seeking relief from sterility	166
Desiring contraceptive advice	4,834

Types of women applying for advice:

Married Women	4,946
Unmarried Mothers	2
Betrothed Couples about to be married	52

Methods recommended at the Clinic:

Small cervical cap Pro-race with greasy suppository, generally quinine or chinosol	4,162
Sponge and vinegar	16
Sponge with quinine suppository or oil	308
Dutch Caps	7
Mizpah Cap	1
Female Sheath	1
Condom	57

"The main method recommended and found satisfactory at the clinic is the small occlusive cervical cap together with a suppository of fat medicated either with quinine or chinosol. The suppository is advisable even when the cap is well fitted, owing to the longevity of the spermatozoa in some vaginae. This has been used in 4,162 cases. The cap is a one-piece all-rubber cap, and we have found the best make in which the manufacturer takes great care

to meet our requirements is the Pro-Race. A feature of great importance in this cap is that the rim, although firm, is soft and flexible and composed entirely of solid rubber so that there is nothing whatever in the cap but pure rubber."

Comment on Follow-up Work

There is no record of any attempt to keep a contact with a patient after she is first instructed. Nothing is recorded of the number who returned to the clinic after their first visit, or the number who continued to use the method prescribed and what were the results. Thirty-one were definitely known to have become pregnant. How many more failed is not known. To assume that those who do not return to register a complaint in a clinic are satisfied and successful, is unwarranted. At least our experience in New York in visiting delinquents proves to us that such an assumption is not justified.

There can be no doubt but that this clinic of Dr. Stopes has rendered assistance to thousands of needy mothers and has done a great service in pioneering a needy field. At the same time it is much to be regretted that statistical data concerning the clinic's experience, which has been so extensive, are not available for those who are now studying the problems of contraception and seeking the best methods to introduce into the clinics of the future. It is not a question now as to whether certain methods are good or not, *but how good, and how do they compare with others*. Only the statistical method can decide this matter, and this is one of the great needs of to-day.

LIST OF EUROPEAN CLINICS GIVING CONTRACEPTIVE ADVICE

According to Dickinson there were in Europe in 1927 forty-two clinics, or hospitals or governmental agencies providing birth control information, as follows:

ENGLAND 20

London 11	Smethwick 1	Mirfield 1
Oxford 1	Manchester 2	Cambridge 1
Wolverhampton 1	Liverpool 1	Birmingham 1

IRELAND 1	*SCOTLAND 2*	*WALES 2*
Belfast 1	Glasgow 1	Cardiff 1
	Aberdeen 1	Abertilly 1

GERMANY 9

Hamburg 1	Frankfort 1	Munich 1
Berlin 4	Darmstadt 1	Breslau 1

AUSTRIA 2

Vienna 2

RUSSIA 3

Moscow 2 Leningrad 1

(Russia is the first government to study the problems of contraception.)

DENMARK 1	*HUNGARY 1*	*NORWAY 1*
Copenhagen 1	Budapest 1	Oslo 1

In addition to the above clinics which are under medical supervision, there are many contraceptive centres in Holland. These are not clinics in the technical sense, but there are thirty-nine offices of doctors (2), midwives (2),

and laywomen (35) giving contraceptive advice. If these are included, it brings the total number of known centers for contraceptive information in Europe to eighty-one.

MEDICAL ASPECTS OF CONTRACEPTION IN ENGLAND

There has been much interest in contraception in England during the past few years. Both the lay press and medical journals have discussed the matter at some length. Considerable popular interest has been expressed, and twenty clinics have been established in various parts of the country. Rival claims have been made as to the superiority of various methods. However, no statistical data based on individual case-histories properly followed up have been produced. In this matter England has been in the same position as other countries. During the past year an investigation of the present situation took place and the results have been made public. The National Council of Public Morals, which has for its object the promotion of the moral and physical regeneration of the race, conducted an inquiry in 1923 known as the National Birth Rate Commission. It was composed of sixty recognized authorities in Religion, Science, Statistics, Economics and Education.

Since that time it has appointed several committees to investigate various phases of social and moral conditions which might have a bearing on the general wellbeing of the race. These committees were constantly brought up against the recurring question of birth control. As a result a Medical Committee was appointed to consider the *Medical Aspects of Contraception*. A complete list of the members of this committee, together with the terms of reference defining the scope of the work to be done, is presented herewith. The subject has, therefore, had impartial investiga-

tion from a competent body of English physicians, surgeons and scientists. Some of the salient points are quoted from that report in these pages.

Since no statistical data on the results of contraceptive methods were presented by any of the physicians who appeared before the committee, its conclusions are based upon the *best opinions* available, and its conclusions can be said fairly to represent the present status of contraception in England at the present time. The author considers it best simply to quote from this report without comment, because the investigation was made by a competent body of physicians, and their opinions and findings are set forth with lucidity, and also because he is not conversant enough with conditions in England to offer any constructive criticism.

Members of the Committee

Chairman:

CHARLES GIBBS, F.R.C.S.

(Senior Surgeon to Charing Cross Hospital and to Lock Hospital).

Vice-Chairman:

SIR ARTHUR NEWSHOLME, K.C.B., M.D., F.R.C.P.

(Late Chief Medical Officer, Local Government Board; late Lecturer on Hygiene and Public Health, Johns Hopkins University, Baltimore.)

C. J. BOND, C.M.G., F.R.C.S.

(Hon. Consulting Surgeon to the Leicester Royal Infirmary; Member of Medical Consultative Council, Ministry of Health; Member of the Industrial Fatigue Research

Board; formerly Member of the Medical Research Council.)

A. K. CHALMERS, M.D., D.P.H.
(Late Medical Officer of Health, Glasgow.)

MRS. AGNES DUNNETT, M.B.
(Medical Officer, Brentford Antenatal Infant Welfare Clinic; late Medical Officer Chiswick Welfare Clinics; late Assistant V. D. Clinics, West London Hospital and Guy's Hospital.)

J. S. FAIRBAIRN, M.A., B.M., F.R.C.S., F.R.C.P.
(Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital, and Consulting Physician to General Lying-In Hospital.)

LETITIA D. FAIRFIELD, C.B.E., M.D., D.P.H.
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ARTHUR E. GILES, M.D., B.Sc., F.R.C.S.
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PROFESSOR LEONARD HILL, M.B., F.R.S.
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FRANCES IVENS, M.B., M.S. (Lond.), Ch.M. (Liverpool).
(Hon. Gynaecological Surgeon, Liverpool Stanley Hospital; Surgeon, Liverpool Maternity Hospital.)

F. H. A. MARSHALL, Sc.D., F.R.S.

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SIR JAMES MARCHANT, K.B.E., LL.D., F.R.S.Ed.

(General Secretary)

TERMS OF REFERENCE

I. It is recognized that there are many aspects of the question of conception control; this inquiry is limited to its medical aspects.

II. In using the term "medical" it is intended to make an investigation into the restriction of families by whatever methods it is accomplished and its effect on the bodily and mental health of the individuals concerned.

III. Under the term "health" are included the relevant biological (physiological and psychological) factors which affect the normal life.

IV. Among the particular problems which it is proposed to investigate are:

(*a*) the medical reasons for the exercise of conception control;

(*b*) the effect on health of sexual abstinence, partial or complete, in married life;

(*c*) the reliability as a preventive against conception of the so-called "safe period" with the relevant physiological and biological problems;

(*d*) the effect of the use of various contraceptives on

(i) the subsequent fertility
(ii) the health
} of the persons concerned.

EXCERPTS FROM THE REPORT

After calling attention to the number of marriages which are normally sterile and the normal interval between pregnancies without contraceptives in the newly married, the Committee finds

(1) That the prevention of conception is being attempted by a large number of individuals.

(2) That this number is probably increasing rapidly.

(3) That the reduction in the birth-rate is partially, and perhaps chiefly, due to the increasing use of contraceptive methods.

METHODS

"*Abstinence*, while it is the obvious, and from the ethical point of view the ideal procedure when it is desired that no children should be born, is impracticable to the majority of young married people. In view of the fact that for many married people it is impossible to avoid sexual excitement, the non-gratification of this physiological act may lead to psychological ills, and if the normal sexual

impulse be not satisfied—irregular sexual practices may follow.

"*Condom or sheath.* This is probably the most certain of contraceptive methods, but as its use necessitates intelligent care it is unsuitable for the ignorant and those under the influence of drink, while the cost makes it prohibitive for the very poor. It is practiced effectually by intelligent persons.

"To this method certain objections are raised, such as—

(1) Diminution of satisfaction in intercourse: various neurasthenic symptoms, including anxiety neuroses arising from doubt of success. No definite evidence of serious illness was obtained from witnesses.

(2) Liability to leak or burst: this is overcome by intelligent care in selection and use.

"*Rubber veils:* of these there are many varieties.

"This method purports to interpose a rubber diaphragm between the cervix uteri and the living spermatozoa. It is being used in increasing numbers, as it is the method advised in the birth-control clinics of this country and in most of those in America. It is used with or without a chemical lubricant; most instructors advise the use of a chemical substance with a non-fatty vehicle placed above and below the veil; it is probable that the chemical vehicle blocks the orifice of the uterus, preventing conception; one specialist reports equal success with the chemical agents only, dispensing with the caps. Used as above these appliances undoubtedly effect their purpose in the majority of cases.

"The objections raised are—(1) The method is ineffectual in the presence of contracted vaginal orifice, lacerations, prolapse, distortion, etc. (2) It requires a medical

practitioner to fit the appropriate size and to teach the woman to place it in position herself; the unintelligent, careless, dirty woman will not find it a success. (3) It involves the use of a douche before and after the removal of the appliance. (4) Serious illness may follow the retention of the cap in the vagina for long periods.

"*Coitus interruptus* is practised by a very large number. The principal objection is that incomplete gratification sometimes produces well-authenticated psychological illnesses in both participants, as well as pain, tenderness, irritability of temper, hysteria and impotence; there is also the possibility of failure.

"*Douches* of all kinds are uncertain and have the objection that, apart from the bad effect of too strong chemicals, the woman's health may suffer from her rising to use a douche immediately after coitus; while if she waits too long, it will be too late.

"*Safe Period.* There is strictly no safe period, as conception may occur at any stage of the menstrual cycle. Experience shows however, that there is a time in which the chances of conception are materially diminished, namely, from about the eighteenth day after the first day of the preceding period until the end of the cycle."

EFFECTS ON HEALTH OF INDIVIDUALS

"*Men* may be psychologically upset by the use of a mechanical contraceptive agent; they may be temporarily less potent or impotent, but generally speaking their health does not suffer. Further, there is always the risk that if a man by using contraceptive methods is not fully satisfied sexually, domestic happiness may be ruined by his seeking

satisfaction by other means or elsewhere, and possibly contracting venereal disease.

"With regard to the *woman*, evidence brought before us suggests that in cases in which, on medical grounds or on account of already large families, contraceptives are advisable, their use brings about an improvement in general health owing to freedom from anxiety as to the possibility of pregnancy, increased happiness in the home, better outlook and greater affection for the children. Some women, on the other hand, suffer from irritability of temper or more serious effects on the nervous system. It is said that these latter conditions are more common when coitus interruptus is practised.

The Local Effects of Some Contraceptive Methods

"Undoubtedly cases of infection causing disease must occur, but they must be comparatively rare or of small account, as the Committee have received little evidence on this point. It has been suggested that previously fertile women are rendered sterile by some methods of contraception—this has not been proved to our satisfaction; but there is evidence that the repeated use of quinine pessaries may be followed by sterility.

"Retention of pessaries for an unduly long time, the use of strong chemicals, etc., are obviously capable of producing grave diseases.

"It is difficult to estimate the degree of harm done by contraceptives as ordinarily used. Those who from religious motives object to their use are apt to lay great stress on these harmful results; and, on the other hand, those

who advise them freely, not having this religious scruple, are apt to minimise the harm done.

REASONS FOR THE USE OF CONTRACEPTIVES

"As this is a medical report, only reasons based on medical grounds can be given here. The indications for the use of contraceptives include diseases of an hereditary character, such as some forms of insanity, and in addition syphilis, incurable diseases such as non-compensated heart disease, Bright's disease and tuberculosis; also conditions that make child-bearing dangerous, such as pelvic deformity, tumors, severe debility and varicose veins, caused by frequent child-bearing.

"Poverty, deficient housing accommodation, etc., are not within the scope of a medical inquiry.

GENERAL REMARKS

"The entirely successful contraceptive, one that would be sure, harmless and simple, has not been discovered yet. The difficulty of the Committee was to ascertain the true efficiency of any method, as each one of the important methods is supported by its own particular advocate; thus some medical practitioners support the condom or coitus interruptus, etc., and some supported each their own particular cap—some apparatus which required a fitting and a more or less elaborate technique, with subsequent examinations and consultations.

"As already stated, this Report is intended to deal with the subject of contraception from an exclusively medical standpoint. But, notwithstanding this, the Committee are

of opinion that medical cannot be entirely divorced from social and moral considerations. Health and disease are so intimately the result of the character of the individual as to make it almost axiomatically true that character is an important condition of health.

"We lay stress on these considerations because we view with anxiety the undiscriminating publicity now being given by some persons to the subject of birth control. We repudiate the idea that innocence should be based on ignorance; but knowledge should be given judiciously, and some of the current publications on this subject we regard as a public bane, especially to young unmarried people.

"We are of opinion that no impediment should be placed in the way of those married couples who desire information as to contraceptives, when this is needed for medical reasons or because of excessive child-bearing or poverty.

"In this matter the welfare of the family, and especially of the children, should determine the common practice; and this welfare is not secured when there is only one child, or where too long intervals elapse between the birth of children."

Comment

This Committee has been obviously fair and unbiased in its attempts to ascertain the facts of the matter under investigation, as evidence from the character of the persons whom it has consulted. The comments quoted in this survey are taken entirely from the report of the Commission. This report has been published in book form including in the text the evidence presented by several well-known phy-

sicians who appeared before the Commission. For a full account of this investigation, the reader is referred to the original volume entitled *Medical Aspects of Contraception*, published by Martin Hopkinson & Company, London, England, 1927.

CHAPTER XVI

Contraception and the Law

GENERALLY speaking, Oriental countries have no contraceptive laws. Custom and public opinion are deemed sufficient to regulate this matter. European countries as a rule have some laws on the subject, but they are usually not of such character as to interfere with a physician in giving advice to his patients when he deems it necessary to give such advice. France, however, which has until recently been very liberal in this respect, passed laws after the World War which prohibit the giving of contraceptive advice and which in addition provide a bonus for mothers of large families. The obvious object of these new laws is to maintain as high a birth rate as is possible in anticipation of another possible war.

Despite this prohibition and the offer of bonuses, the birth rate in France for 1925 was the same as that for 1913. Thus the population has shown its disapproval of the new law in a very tangible manner. France and the United States are the only countries which have such strict laws against contraception. The constantly declining birth rate in the United States also shows that popular opinion and practice are by no means in accord with the laws in this matter.

There are two sets of laws governing contraception in the United States, Federal and State laws. Sections 211

and 212, of the Federal laws, which are the principal sections, are given here in full so that their exact character may be seen and appreciated.

FEDERAL LAWS

Sections 211 and 212 of the Act of Congress approved March 4, 1909 (35 Stat. L., 1129, as amended by the Act of March 4, 1911), provide:

SEC. 211. Every obscene, lewd, or lascivious, and every filthy book, pamphlet, picture, paper, letter, writing, print, or other publication of an indecent character, and every article or thing designed, adapted, or intended for preventing conception or producing abortion, or for any indecent or immoral use; and every article, instrument, substance, drug, medicine, or thing which is advertised or described in a manner calculated to lead another to use or apply it for preventing conception or producing abortion, or for any indecent or immoral purpose; and every written or printed card, letter, circular, book, pamphlet, advertisement, or notice of any kind giving information directly or indirectly, where, or how, or from whom, or by what means any of the hereinbefore-mentioned matters, articles, or things may be obtained or made, or where or by whom any act or operation of any kind for the procuring or producing of abortion will be done or performed, or how or *by what means conception may be prevented* or abortion produced, whether sealed or unsealed; and every letter, packet or package, or other mail matter containing any filthy, vile, or indecent thing, device, or substance; and every paper, writing, advertisement, or representation that any article, instrument, substance, drug, medicine, or thing may, or can be, used

or applied *for preventing conception* or producing abortion, or for any indecent or immoral purpose; and every description calculated to induce or incite a person to so use or apply any such article, instrument, substance, drug, medicine, or thing, is hereby declared to be nonmailable matter and shall not be conveyed in the mails or delivered from any post office or by any letter carrier. Whoever shall knowingly deposit, or cause to be deposited for mailing or delivery, anything declared by this section to be nonmailable, or shall knowingly take, or cause the same to be taken, from the mails for the purpose of circulating or disposing thereof, or of aiding in the circulation or disposition thereof, shall be fined not more than five thousand dollars, or imprisoned not more than five years, or both. And the term "indecent" within the intendment of this section shall include matter of a character tending to incite arson, murder, or assassination.

SEC. 212. All matter otherwise mailable by law, upon the envelope or outside cover or wrapper of which, or any postal card upon which, any delineations, epithets, terms, or language of an indecent, lewd, lascivious, obscene, libelous, scurrilous, defamatory, or threatening character, or calculated by the terms or manner or style of display and obviously intended to reflect injuriously upon the character or conduct of another, may be written or printed or otherwise impressed or apparent, are hereby declared nonmailable matter, and shall not be conveyed in the mails nor delivered from any post office nor by any letter carrier, and shall be withdrawn from the mails under such regulations as the Postmaster General shall prescribe. Whoever shall knowingly deposit or cause to be deposited, for mailing or delivery, anything declared by this section to be nonmailable

matter, or shall knowingly take the same or cause the same to be taken from the mails for the purpose of circulating or disposing of or aiding in the circulation or disposition of the same, shall be fined not more than five thousand dollars, or imprisoned not more than five years, or both.

Most thoughtful students of the subject believe that the real object of these laws was to prevent the dissemination of pornographic literature through the United States mails. In this way lewd or obscene pictures or printed matter could be kept from corrupting the morals of the youth of the country. But, unfortunately, among the other prohibitions in this law there is the statement that anything to prevent conception or to produce abortion is unmailable. In so far as this section of the Federal law is applied to protect the morals of the youth, few will be found to object. But when the law is interpreted so narrowly that scientific men, particularly physicians, are prevented from discussing in their professional literature anything pertaining to contraception or abortion, it becomes absurd.

It is universally recognized that the physician in his practice often meets women already pregnant who cannot possibly carry the child-bearing process through to a successful termination. In fact, abortions are constantly being performed in leading hospitals as a result of consultation and united medical opinion to save the lives of patients. This is so important and necessary that, despite the law, abortion is freely discussed in leading medical journals and in text books on gynecology and obstetrics. Details of causes, symptoms, methods, and full technique, are included in these discussions with such illustrations as are deemed necessary by the author.

If operations of this type are thus necessary to save the lives of patients, it surely becomes necessary also to advise such patients how to avoid other equally dangerous pregnancies, which can lead only to other operations. Scientific judgment and humane impulse both dictate this course. If the law is to be interpreted so narrowly as to prevent a discussion of this vital subject, it can lead only to hypocrisy and evasion, and to repeated abortions. In order to avoid this condition, it would seem advisable to amend the present law so that physicians will not feel themselves hampered or embarrassed in this matter. THE AMERICAN GYNECOLOGICAL SOCIETY [1] has already taken action in this matter by endorsing the following amendment to the existing Federal law:

> *Standard medical works, standard medical and scientific journals and reprints therefrom which contain information with reference to the preventing of conception, are not non-mailable under this section.*

STATE LAWS

The existing State laws on this subject were passed with the same object in mind; namely, the prevention of the spread of lewd or obscene literature, and they were copied largely after the Federal laws (see the table at the end of this section giving a summary of all State laws). These State laws were passed at a later date than were the Federal laws, and in many cases they were subject to closer scrutiny. In many instances, in fact, they expressly state

[1] Meeting of American Gynecological Society, Washington, D. C., May 5, 1925.

that nothing in this obscenity law, even though abortion and the prevention of conception are mentioned as in the Federal law, shall be construed to apply to medical works, to the teaching in medical schools, to printed matter in medical journals, or to a physician in the course of his practice. This, of course, reflects the modern viewpoint, which was clearly expressed by the *Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association* by its formal endorsement of the following resolution at a business meeting held at Atlantic City, May 29, 1925:

> *Resolved that we hereby recommend the alteration of existing laws wherever necessary so that physicians may legally give contraceptive information to their patients in the regular course of practice.*

A Summary and a Recommendation

In so far, therefore, as it is possible to obtain organized medical opinion, physicians both desire and need the amendment of Federal laws and of many State laws, so as to enable them legally to give contraceptive advice to their patients when in their judgment the case requires it.

Women have the right under the law to practice contraception in every state of the Union except Connecticut, which specifically forbids the *use* of contraceptives. Most of our prohibitory laws, however, are directed against the advertising, sale, gift or exhibition of drugs or articles for the prevention of conception. Restrictive laws, generally speaking, are concerned with the channels and with the manner in which contraceptive information and supplies shall come to the woman.

The Federal Government says the mails and common carriers must not be used for this purpose. About one-half the States restrict in the same way the dissemination of information and the manufacture and sale of supplies.

All these measures hamper the individual, who is legally entitled to *practice* contraception, in obtaining the needed information and equipment. Since modern contraceptive methods are mostly medical, or require appliances the use of which need instruction by physicians, it is imperative that the medical profession should be the channel through which they reach the public. Recognizing this necessity, many States make exception in their laws for physicians.

Mr. George E. Worthington, formerly of the American Social Hygiene Association, sums up the situation thus in his pamphlet on *Statutory Restrictions on Birth Control:*

"The argument has been advanced by conservative members of the medical profession that the control of contraception, at least so far as any medical or artificial measures are concerned, should remain a matter of medical case-work in that married women who should not for good reasons become pregnant should be guided therein by competent physicians. If this view is sound, physicians might find themselves hampered in a few of the States. They would be free to advise and prescribe with reference to contraception in the following nine States:

Colorado
Georgia
Indiana
Iowa
New Hampshire
New Mexico
North Carolina
Ohio
Wyoming

In New York and Minnesota, they could advise and prescribe at least to the extent of curing or preventing disease.

"Even though they might not be prohibited in the following twenty-five States and in Federal Territories from prescribing or giving information or making adjustments of prescribed articles, there is some question as to whether obscenity laws may not prevent such advice from becoming effective, inasmuch as the sale of the articles or drugs prescribed might be held to be unlawful:

Alabama	Oregon
Arkansas	Pennsylvania
Delaware	Rhode Island
Florida	South Carolina
Illinois	South Dakota
Kentucky	Tennessee
Louisiana	Texas
Maryland	Utah
Michigan	Vermont
Nebraska	Virginia
Nevada	West Virginia
North Dakota	Wisconsin
Oklahoma	District of Columbia

"If he observes the letter of the law, the physician might find himself considerably hampered by the legal restrictions in these eleven States:

Arizona	Massachusetts
California	Minnesota
Idaho	Mississippi
Kansas	Missouri
Maine	Montana

Washington

"The restrictions contained in the Federal laws relating to the use of the mails and express, no doubt operate further to hamper physicians in making their advice effective. In order to comply strictly with the law, the drugs or instruments prescribed must be produced in the State in which the patient lives, and must be forwarded to him by other means than through the mails."

The desire to prevent conception is often so reasonable and just that no restrictive laws can check the growing demand for knowledge on this vital subject. Some of the most distinguished leaders of the medical profession are strong advocates of greater freedom in this matter, and physicians generally deprecate laws which prevent them, in the honorable discharge of their duties, from giving contraceptive advice to patients urgently in need of it.

Statistics dealing with the declining birth rate show clearly that the present laws are ineffective. They succeed only in shutting women off from the clean, scientific, trustworthy sources of information and relief, and in forcing them to go to the "bootlegger" and to the quack; and thousands of fear-ridden, bewildered mothers resort in despair to the practice of abortion.

The Federal and State laws should be so amended that any woman requiring contraceptive advice and treatment

shall have no difficulty in obtaining it from her physician, who in turn shall suffer no embarrassment in giving it.

Mr. Worthington has prepared the following:

PROPOSED AMENDMENT TO THE FEDERAL LAW ON CONTRACEPTION

211 PROVIDED THAT:

Standard medical and scientific journals and reprints therefrom and standard medical works and reprints therefrom, which contain information with reference to the preventing of conception, *are not non-mailable* under this section.

PROVIDED FURTHER THAT:

1. Any article, instrument, substance, drug, or thing designed, adapted or intended for preventing conception, or any written or printed information or advice concerning the prevention of conception *is not non-mailable* under this section when mailed by a duly licensed physician to:

a. Another person known to him to be a duly licensed physician;
b. One of his bona fide patients in the course of his professional practice;
c. A bona fide printer or publisher or by such printer or publisher to a duly licensed physician.

2. Any article, instrument, substance, drug or thing designed, adapted or intended for preventing conception *is not non-mailable* under this section when mailed in the regular course of legitimate business by:

a. An importer to a manufacturer or wholesale dealer in drugs, or by a manufacturer or wholesale dealer in drugs to an importer;

b. A manufacturer to a wholesale dealer in drugs, or by such wholesale dealer to a manufacturer;

c. A wholesale dealer in drugs to another such wholesale dealer or a retail dealer in drugs, or by such retail dealer to such wholesale dealer;

d. A retail dealer in drugs to a duly licensed physician or to another person upon the written prescription of a duly licensed physician, or by such physician or person to such retail dealer.

EPITOME OF ALL STATE LAWS

ALABAMA No prohibition for physicians. Not mentioned in obscenity laws.

ALASKA Classed with obscenity and expressly forbidden.

ARIZONA Prohibits any person from writing or publishing any notice or advertisement of any medicine, drug or means for preventing conception or from offering his services for this purpose.

ARKANSAS See Alabama.

CALIFORNIA See Arizona.

COLORADO Regular practitioners of medicine exempted. Information may be given in medical colleges and standard medical works. Druggists in legitimate business exempted. Strict law for laity.

CONNECTICUT Use of any drug, medicine or appliance for prevention of conception prohibited. Not mentioned in obscenity laws. No law concerning giving of information.

DELAWARE See Alabama.

FLORIDA See Alabama.

GEORGIA Physicians in regular practice exempted. No mention in obscenity laws.

IDAHO See Arizona.

ILLINOIS See Alabama.

INDIANA See Colorado.

IOWA See Colorado.

KANSAS Strict prohibition. Standard medical works only exempted.

KENTUCKY See Alabama.

LOUISIANA See Alabama.

MAINE Prohibits any person from writing or publishing any notice or advertisement of any medicine or means for preventing conception. No mention of oral information or of physicians.

MARYLAND See Alabama.

MASSACHUSETTS Prohibits sale or gift of medicine, drug or instrument to prevent conception, giving of oral information, and depositing in or receiving from the mails of such things. No exemption for physicians.

MICHIGAN See Alabama.

MINNESOTA Physicians allowed to give information for the cure or prevention of disease. Strict prohibition for laity.

MISSISSIPPI See Arizona.

MISSOURI See Massachusetts, but exemptions for medical colleges and medical works. Physicians not specified.

MONTANA See Arizona.

NEBRASKA See Alabama.

NEVADA See Alabama.

NEW HAMPSHIRE Regular practitioners of medicine exempted.

NEW JERSEY Prohibits any person, without just cause, from exposing, selling or having in his possession with intent to sell any instrument, drug or medicine for prevention of conception, or stating orally or in writing where and how such can be obtained. Also prohibits manufacture or purchase of such things.

NEW MEXICO Information may be given by regular practicing physicians. No obscenity law.

NEW YORK See Minnesota.

NORTH CAROLINA See Georgia.

NORTH DAKOTA See Alabama.

OHIO See Colorado.

OKLAHOMA See Alabama.

OREGON See Alabama.

PENNSYLVANIA See Arizona.

RHODE ISLAND See Alabama.

SOUTH CAROLINA See Alabama.

SOUTH DAKOTA See Alabama.

TENNESSEE See Alabama.

TEXAS See Alabama.

UTAH See Alabama.

VERMONT See Alabama.

VIRGINIA See Alabama.

WASHINGTON See Arizona.

WEST VIRGINIA See Alabama.

WISCONSIN See Alabama.

WYOMING See Colorado.

DISTRICT OF COLUMBIA and all Federal Territories See Arizona.

PORTO RICO See Arizona.

HAWAII See Alabama.

STERILIZATION AND THE LAW

Requests are frequently received from physicians in all parts of the country requesting advice about the legal aspects of sterilization. A brief statement of the subject is given which is taken entirely from the works of Harry H. Laughlin, Carnegie Institute, Washington, who is the greatest authority on this subject. For fuller information, the reader is referred to his exhaustive study of the subject entitled "Eugenical Sterilization in 1926. An Historical, Legal and Statistical Review of Eugenical Sterilization in the United States."

THE LEGAL STATUS OF EUGENICAL STERILIZATION

"If it is agreed that certain individuals are so degenerate in their hereditary properties that offspring procreated by them would, in high probability, rank as defective or degenerate persons, despite the best efforts of medicine and education, then it would seem to be the duty of organized society to prevent their reproduction. If such prevention is accomplished by institutional segregation—as is the case with most modern state institutions—then sexual sterilization is not necessary. If, however, the degenerate individual is physiologically able to reproduce, and is not restrained from doing so by effective segregation, then the

surest way to prevent reproduction would seem to be to destroy the physiological capacity to reproduce. This has been done in many cases.

"The first legalized eugenical sterilization was the Indiana law of 1907. Since that time twenty-three different states have, at one time or another, enacted eugenical sterilization laws. These were largely experimental and called forth much litigation. The whole thing, however, worked out in the direction of both legal and practical progress. Many of the early laws had elements of punishment in them. It seemed, for example, to be the application of poetic justice to castrate certain sex-perverts who had committed certain crimes against sex. If such sterilization was not cruel, it was, at least, unusual. But now the sterilization laws are in no manner punitive. The only motive for eugenical sterilization is to prevent the reproduction of offspring who would be endowed with such low physical, mental and temperamental qualities as to make it highly probable that they would function as defectives or degenerates. There were many other features in the early laws which the courts questioned. Finally, however, after twenty years of experimental legislation, the Supreme Court of the United States, on May 2, 1927, upheld the constitutionality of the Virginia Sterilization law in the case of Carrie Buck *vs.* J. H. Bell (Supt. 274 U. S. 200). The Virginia law is held to be well within the police powers of the state. It is not punitive. It protects the rights of the individual by due process of law, and by its use the state exercises its now decided right to cause the sexual sterilization of individuals who, from their individual and family history evidence, would, in

high probability, produce degenerate offspring, if they produced any offspring at all.

"This decision of the United States Supreme Court marks a step of fundamental importance in the advance of applied eugenics in the United States. The first experimental period is now ended. In this decision the opinion of the Supreme Court was delivered by Mr. Justice Holmes, in the course of which he said: 'We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the state for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind.'

"It is now clear that any state in the American Union can, if it so desires, enact a eugenical sterilization law which, based on the experience in legislation, litigation and practical administration, would—unless specifically forbidden by its own State Constitution—be held constitutional, and which would reasonably be expected to aid greatly in solving the problem of hereditary degeneracy. But too much must not be expected from eugenical sterilization. It will doubtless increase in usefulness, and will become a powerful factor acting in the direction of its purpose, but it is only one force out of many which must converge in concerted effort to destroy hereditary degeneracy." [1]

[1] *The Legal Status of Eugenical Sterilization,* Harry M. Laughlin, Carnegie Institute of Washington. *Birth Control Review,* March, 1928.

PRESENT LEGAL STATUS OF EUGENICAL STERILIZATION, BY STATES:

ALABAMA. No legislation.

ARIZONA. No legislation.

ARKANSAS. No legislation.

CALIFORNIA. Chapter 363, statutes of 1913, as amended by Chapter 489 of the laws of 1917 and section 42, Chapter 776 of the laws of 1917. Functioning satisfactorily. Not tested by the courts.

COLORADO. No legislation.

CONNECTICUT. Chapter 209, Public Acts of 1909. Later incorporated in the general statutes, revision of 1918, in Chapter 137, sections 2691–2692, and amended by Chapter 69, Public Acts of 1919. Functioning moderately. Constitutional according to the opinion of the attorney-general, but not tested by the courts.

DELAWARE. Chapter 62, laws of 1923. Functioning moderately. Not tested by the courts.

FLORIDA. No legislation.

GEORGIA. No legislation.

IDAHO. Bill vetoed 1919. Chapter 194, laws of 1925. Functioning moderately. Not tested by the courts.

ILLINOIS. No legislation.

INDIANA. Chapter 215 of the laws of 1907. Functioned moderately for fourteen years until finally declared unconstitutional by the State Supreme Court on May 11, 1921.

IOWA. The first statute, Chapter 129, 1911, was repealed in 1913 by the second statute, Chapter 187, Acts of the 35th General Assembly. This second statute was declared unconstitutional by the Federal District

Court in 1914, and repealed April 16, 1915, at which date it was supplanted by the third statute, Chapter 202, Acts of the 36th General Assembly. Functioning moderately. Not tested by the courts.

KANSAS. First statute, Chapter 305, 1913, repealed by second statute, Chapter 299, 1917. Functioning satisfactorily. Not tested by the courts.

KENTUCKY. No legislation.

LOUISIANA. No legislation.

MAINE. Chapter 208, laws of 1925. Effective July 11, 1925.

MARYLAND. No legislation.

MASSACHUSETTS. No legislation.

MICHIGAN. First statute, Act No. 34, 1913, declared unconstitutional by State Supreme Court, 1918. Second statute, Section 2, Act No. 285, Public Acts of 1923, amended by Public Act No. 71, 1925. Functioning moderately. Declared constitutional by the State Supreme Court, June 18, 1925.

MINNESOTA. Chapter 154, H.F. No. 469, 1925. Preparations being made for application.

MISSISSIPPI. No legislation.

MISSOURI. No legislation.

MONTANA. Chapter 164, 1923. Preparations being made for application.

NEBRASKA. Bill vetoed 1913. Chapter 237, 1915. Functioning satisfactorily. Not tested by the courts.

NEVADA. Section 28, Crimes and Punishment Act, 1911, declared unconstitutional by Federal District Court in 1918. No operations performed under it.

NEW HAMPSHIRE. First statute, Chapter 181, 1917, amended by Chapter 152, 1921. Functioning moderately. Not tested by the courts.

NEW JERSEY. Chapter 190, 1911, declared unconstitutional by State Supreme Court, 1913. No operations performed under it.

NEW MEXICO. No legislation.

NEW YORK. Chapter 445, 1912, declared unconstitutional by State Supreme Court, Albany County, March 8, 1918. Decisions sustained by Appellate Division, July 1, 1918. Repealed during pending of appeal to Court of Appeals, 1920. Forty-two operations under law.

NORTH CAROLINA. No legislation.

NORTH DAKOTA. Chapter 56, 1912. Functioning moderately. Not tested by the courts.

OHIO. Bill vetoed by governor, 1925.

OKLAHOMA. No legislation.

OREGON. Bill vetoed, 1909. First statute, Chapter 279, 1917, declared unconstitutional by Circuit Court for Marion County, 1921. Second statute, Chapter 194, 1923. Functioning satisfactorily. Not tested by the courts.

PENNSYLVANIA. Bills vetoed 1905 and 1921.

RHODE ISLAND. No legislation.

SOUTH CAROLINA. No legislation.

SOUTH DAKOTA. First statute, Chapter 236, 1917. Not tested by the courts. Incorporated without change in Revised Code, 1919, Section 5538. New law, Chapter 164, 1925. Preparations being made for application.

TENNESSEE. No legislation.

TEXAS. No legislation.

UTAH. Chapter 82, 1925. Preparations being made for application.

VERMONT. Bill vetoed, 1913.

VIRGINIA. Chapter 394, 1924, declared constitutional by the Circuit Court of Amherst County, April 13, 1925. Constitutionality upheld by Supreme Court of Appeals of Virginia, November 12, 1925. Functioning moderately.

WASHINGTON. First statute, Chapter 249, Section 35, Criminal Code, 1909. Purely punitive. Constitutional by decree of State Supreme Court, 1912. Second statute, Chapter 53, Session Laws, 1921. Primarily eugenic. Not tested by the courts.

WEST VIRGINIA. No legislation.

WISCONSIN. Chapter 693, 1913. New bill vetoed by governor, 1925.

WYOMING. No legislation.

District of Columbia, Outlying Territories, and the Federal Government

DISTRICT OF COLUMBIA. No legislation.

ALASKA. No legislation.

HAWAII. No legislation.

PORTO RICO. No legislation.

THE UNITED STATES FEDERAL GOVERNMENT. No legislation.

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